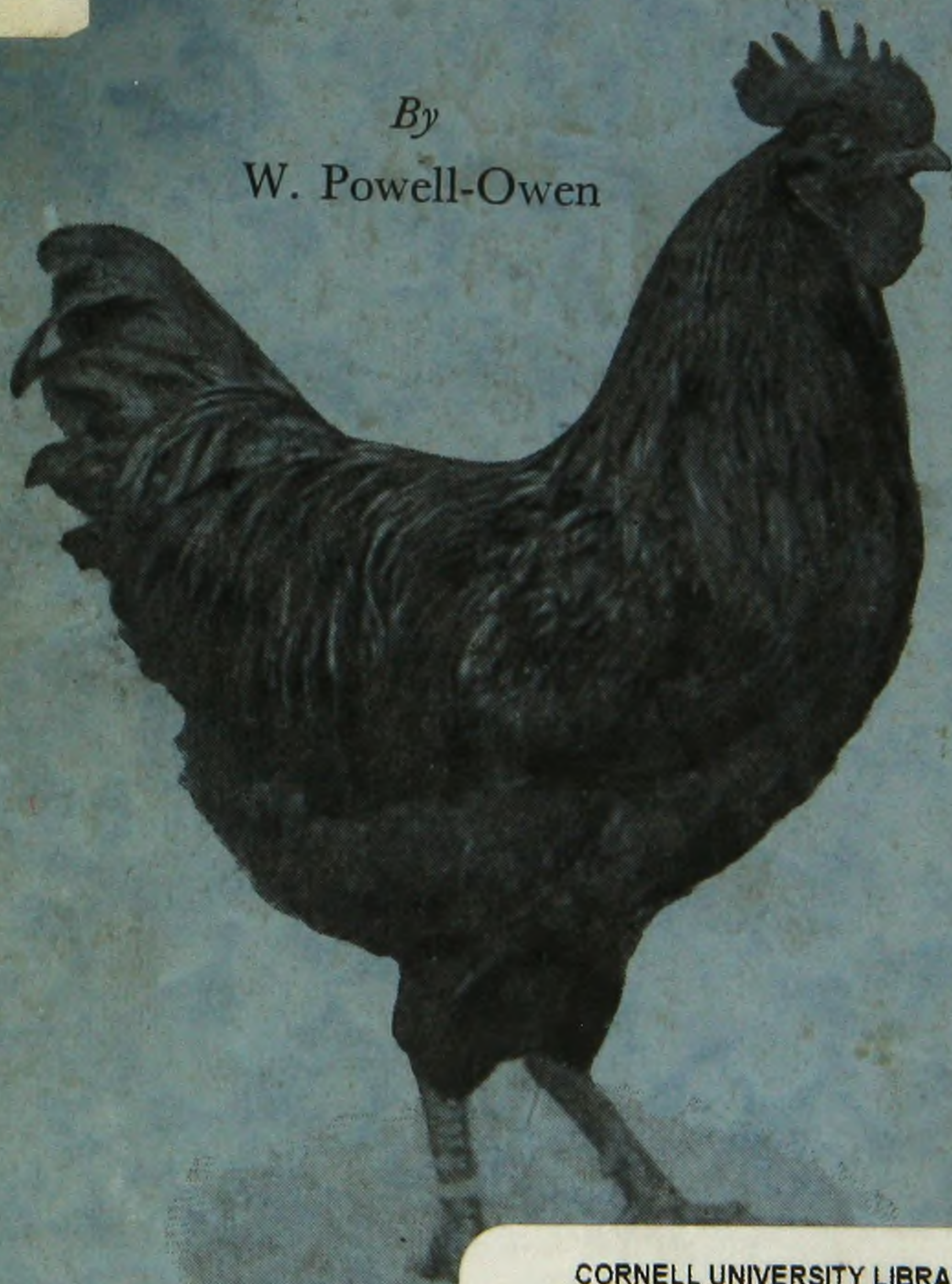


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THE ARNEVELDER

By
W. Powell-Owen



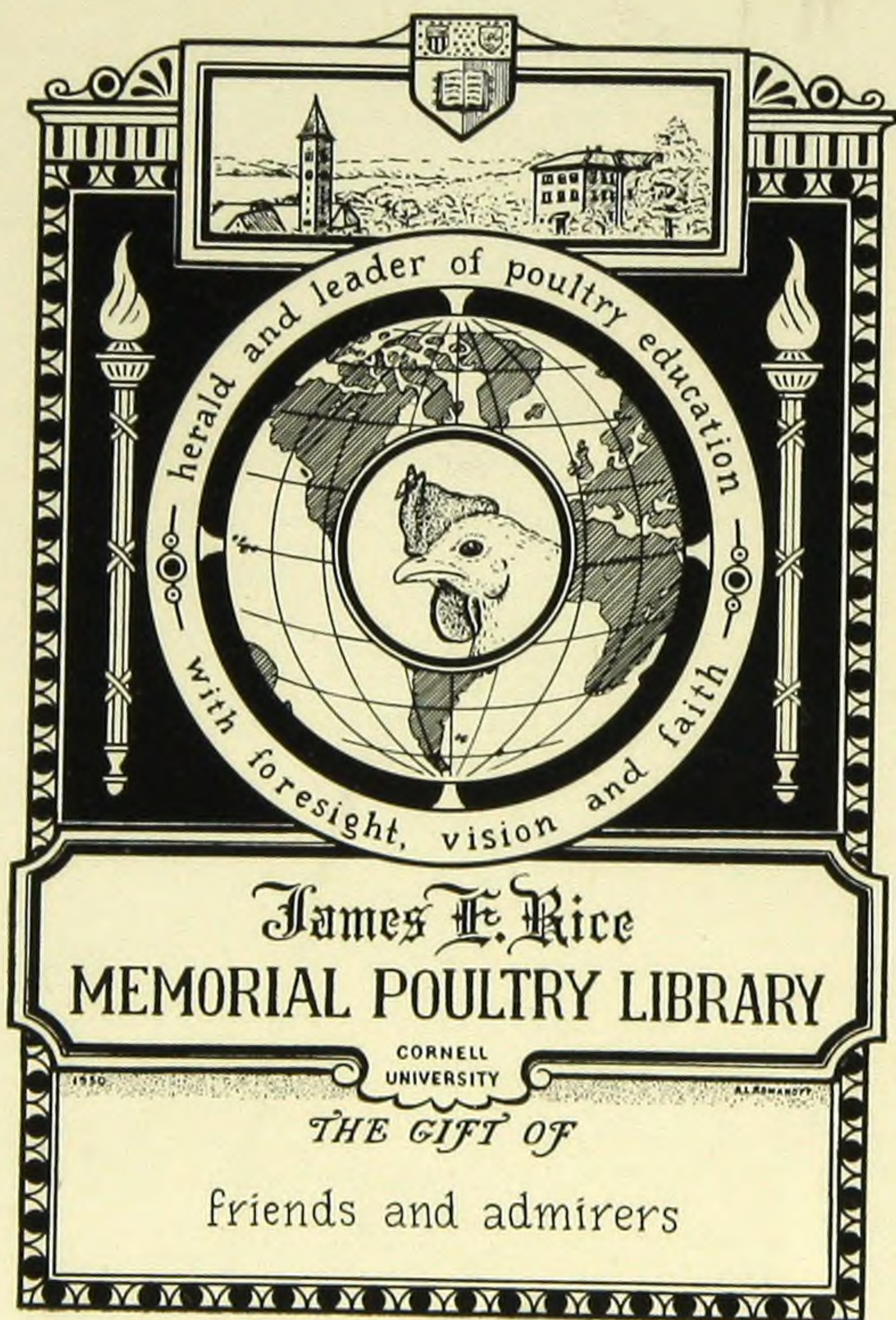
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PARTRIDGE MALE AND LACED-BREASTED MALE.

Top and centre left: Hackle feathers of a standardised partridge male, viz.—red-brown with distinct but small black tip ; fluff grey ; quill red-brown. *Bottom:* Cape, back and wing-bow feathers, viz.—red-brown with wide black tip ; fluff grey ; quill red-brown. *Centre right :* Since 1925 laced-breasted males have been used to breed laced females, such birds being termed pullet-breeding laced males. This is a typical feather taken from the breast of such a male.

THE BARNEVELDER

Setting out the current standards for the Laced, Partridge and Black varieties, with detailed descriptions thereof. Illustrated with unique plates of feathers as a guide to beginners. Containing, too, much general information on Shows and Showing, Colour Breeding, Laying Tests, the Brown-egg Factor, Egg-production, and the Culling of Growing Stock. With chapters on BARNEVELDER BANTAMS, and other varieties of the Barnevelder, Whites and Spangleds.

BY

W. POWELL-OWEN,

Vice-President, Club Judge and on Committee of the British Barnevelder Club.

President, Club Judge and on Committee of the Black Barnevelder Club.

* * *

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AUTHOR'S NOTE.

SINCE the first edition of *The Barnevelder* was published revisions have been made in the Club Standards. These are fully dealt with in the present edition, which has been entirely rewritten and brought up to date. The question of Laced-breasted Males is also dealt with in detail and other topics anent the breed that have been under discussion of late.

Greater space has been devoted to the Black variety than in the first edition, a chapter has been included to cover the BARNEVELDER BANTAM, and reference is made to the newer White and Spangled varieties. Additional illustrations have also been prepared to explain more clearly for beginners new colour points in feathers.

1932.

W. POWELL-OWEN.

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CHAPTER I.

DUTCH AND ENGLISH HISTORY.

ABOUT eighty years ago in the neighbourhood of the village of Barneveld (Gelderland Province), Holland, we are told that the fowls were of a very diversified nature as regards colour of plumage, and termed simply "farmers' fowls." On a few farms *Cochins* were kept, their brown eggs being in great demand. Males of this breed were eagerly sought because of the brown-shelled products. In 1885 the crossed *Cochins* were mated with *Brahmas*, and a few years later with *Langshans*. In 1899 the fowls on the farms in the neighbourhood of Barneveld showed some uniformity, due it is said to the poultry-keepers buying sittings from those farmers who brought the finest brown eggs to the market. Dark-coloured males seemed to predominate. In 1906 further crossing took place with the *Buff Orpington*, making the birds a little more partridge-coloured.

It was in 1910 that steps began to be taken to obtain more uniformity in colour and type, and from this time dates the name Barnevelder. The introduction of the trap-nest followed, and in 1921 a Dutch association of Barnevelder breeders was formed and a standard for the breed fixed. For this history we are indebted to Messrs. Wijk and Ubbels, from the paper read by them at the World's Poultry Congress, 1930. Therein they add:

"The colour of the feathers shows some similarity to that of the Indian Game Cock, although this breed has not been used in the creation of the Barnevelder. The males, however, have a seamed neck. In breeding regard is paid, in the first place, to a large number of large brown eggs, and only in the second place to the colour of the feathers. By its build the Barnevelder belongs to the so-called medium heavy breeds."

Cochins, *Brahmas*, *Langshans* and *Orpingtons* then are given by these Dutch authorities as the make-up of the Barnevelder, in conjunction with the local farm crosses. We can hardly follow the plumage-colour from this combination. Maybe the partridge variety of *Cochin* was concerned in the first place, which would explain perhaps the black breast in the male and some of the pencilling on the females. One might have thought that *Buff Orpington* introduction would have also brought along broodiness, yet it has been one of the most noticeable features in the breed since the importation here for Barnevelder females to be completely or

almost non-broody. Many authorities apparently give credit to the *Gold-laced Wyandotte* and the *Partridge Wyandotte* as taking their places in the make-up of the breed. Heavy breeds of yesterday for the most part laid brown eggs, and it has only been since such breeds were taken up for record egg-production that this shell-colour has been lost. Responsibility for this may perhaps be shared by (1) non-selection for shell-colour; (2) greatly increased egg-production, and (3) the introduction of light-breed blood by utility breeders to heavy breeds, this latter being practised extensively at one time for test-winning and to reduce or even breed out broodiness. Many females in some strains of heavy breeds to-day lay almost white-shelled eggs.

That the Langshan played its part in the make-up of the breed is undoubtedly very true. This is the breed that in England at one time laid real coffee-coloured eggs. Our mind goes back many years to the time when we were advocating the breeding of brown eggs into all Croad-Langshan strains as a commercial asset, by selection. In the exhibition days! And Mr. R. O. Ridley was accustomed to sending us each year a box of coffee-coloured eggs from his Croads to show that he had not permitted this utility asset to lapse. The earlier specimens of Barnevelders arriving in this country manifested plain enough signs of Croad blood in their back-breeding, for feathered shanks, also feathers on hocks and between the toes, were most noticeable among the defects.

English history may well date back to about 1921, when rumours were current that Barnevelders from Holland had been imported and that they would attract the British poultry public by their *large brown eggs*. It was in that year, I think, that some of *the first specimens of the breed to be exhibited here* came under me. Extensive imports by aeroplane of day-old chicks from Holland followed, and we remember being consulted on the type of box to use, and if the chicks should be packed tightly or loosely for a trip in the air. The latter was advised and proved successful. In May, 1922, the *British Barnevelder Club was formed*, a standard drawn up and submitted to The Poultry Club, and the first Club Show, with 187 entries in 7 classes (120 in 5 exhibition classes and 67 in the two for utility) was held at Olympia. In the same year a section for the breed was arranged at Harper Adams laying test, drawing twelve entries or pens.

It has been stated that this country's first interest in the breed was aroused by The World's Poultry Congress held at The Hague, when English breeders visiting this exhibition were attracted by the very large rich-brown eggs produced by the Barnevelder and importations followed. Prior to seeing specimens of the breed we were all more familiar with their eggs quoted on the London Egg-market as "Dutch all-browns," and which on their size and rich colour realised always so much per dozen more than even the best English products.

CHAPTER II.

THE ORIGINAL IMPORTATIONS.

WHEN the first specimens came to this country a Dutch standard of sorts duly accompanied them. Translation upon translation into English we personally obtained to secure as correct a reading as possible, but with the same confusing end. At standard-making and breeding to uniform characteristics of type, colour and markings the English poultry fancier stands supreme the world over. He can take even the rawest material, prepare a standard, breed to it, and in a few years display uniformity in his specimens. In any standard description of colour and markings a spade is here called a spade; each part of the bird or each feather even is defined. One may therefore understand how confusing the Dutch standard for the breed appeared in the early days through being less defined. In their paper read at The World's Poultry Congress, 1930, Messrs. Wijk and Ubbels refer to the males as having *a seamed neck*. That description would never remain acceptable in any English standard, or there would be half a dozen readings of it. The English fancier tries to secure one clear definition in order to obtain uniformity in breeding, showing and judging. The Dutch description of the neck-hackle for males as *black with red* was equally unacceptable because it was not sufficiently definite. It could stand for too many variations—a black feather laced with red; a red feather laced with black; black ending red; red ending black, and so on.

In the show-pen in this country it has always been customary for exhibitors and the public to expect each judge to be *consistent as to type, colour and markings* with all his carded birds in each class. The commended must resemble the first-prize bird, or at least show that the judge has kept to one ideal throughout. That ideal is to the standard, and this latter is based on the perfect hundred-per-cent bird—never, so far, bred. Custom does not accept the principle that the first-prize bird can have a black neck, the second a red, and the third a black-and-red. Yet we may notice variations in Dutch shows in certain breeds, to wit the Welsummer male apparently. The English fancier may not mind which is selected by the majority vote so long as one only is taken and standardised. Then he will settle down to breed to that characteristic by careful selection and mating.

Handling most of the specimens first imported we were somewhat amazed at the lack of uniformity in type and colouring. Also at their *extraordinary defects*. The only outstanding feature was the large brown egg! The majority possessed that asset without a doubt, and it was rare for pullets, no matter how reared or when hatched, to commence with an egg under 2oz. Some of the hens laid brown products of extra size. In this chapter, however, we are dealing with standard points, and the imported specimens seemed most lacking in this direction. We have never seen a breed with such low-grade headpoints. Light eyes, green and even white eyes, were common; lobes were often almost white; combs carried the very ugly double ends and sprigs; and the hens had that thick skull and coarseness so common to the lazy or sluggish type of bird. Feathers between toes, stiff feathers on hocks and down the sides of the shanks were common defects. Wholly white feathers in wings and tail, also wholly white under-colour were among other general failings. High saddles, wry and squirrel tails, with deformed or rounded backs were plentifully in evidence. Many then suggested that the Dutch breeders, not wishing us to break into their English all-brown egg markets, sent us their worst specimens. How could that be when these birds laid large brown products? It was probably, then, a matter of eggs first and selection of birds or breed second!

The early imported specimens reminded one of just farm poultry of no particular breeding or selection for uniformity of type and markings. No doubt that is the explanation, and that the breed had been *bred simply and solely for large brown eggs*. If a hen laid a large brown product she had been put into the breeding pen without regard to plumage colour, type, defects, conformation, or even number of eggs. The history of the breed as already given points to the fact that the Dutch Association formulated a standard in 1921, that about that time specimens were exhibited at leading shows in this country, and that the English club was formed in 1922, and its standard drafted. Not the least doubt in my mind that the breed was nowhere near to standard breeding when both countries set out to draft an ideal description and pattern.

The Earliest Importations. Taking most of the males, breast colour was black, but in some splashed or laced. Top-colour varied considerably as regards both hackles and wing-bows. Hardly a male displayed definite markings in neck and saddle hackles as we understand and have such to-day. Black-with-red might or might not have covered a general description of hackles, because apart from the black the colouring varied from carrot-red, sandy, brick-red, etc., to bright yellow. Again on some birds the hackles were almost wholly coloured, or wholly black, and on others coloured except for a black tip to each feather. The cape and wing-bows varied from coloured centres to black surrounds up to black centres and red surrounds, while many had "ruddy" capes, backs and wing-bows with wholly-red feathers just ending with black. Not a

few had black wing-bows. White wing feathers, white sickles, and white under-colour (back, neck and even breast) were very noticeable.

Taking the females, the neck hackle was in most specimens freely coloured, a kind of black feather laced with colour. The latter more often than not was a brilliant yellow, but on many specimens was "carroty," brick-red or sandy. In many the neck was black. This colouring usually covered the hackle from top to base. Body colour varied, but for the most part the females were partridge marked (stippled or peppered), splashed or single laced. The plumage colour was mainly black, but the centre of each feather was either splashed or shafted with colour, this latter varying from yellow to brick-red. By splashed or shafted I mean that a centre narrow stripe of colour ran down the shaft of each feather. Sometimes it kept to the quill of the feather, at others it was broader, and in a goodly number of specimens so large as to resemble a single laced variety. The breast colouring of most females followed this pattern, and when the back, saddle and wing-bows had broad centres of colour (yellow, red, brick-red or brown), the breast might be lightly shafted on the same bird.

This fact might well point to the use of *gold-laced Wyandotte blood* in the make-up of the breed, or at least in certain Dutch strains. Many looked like inferior farm-bred Golden Wyandottes with very heavy outer black lacing and narrow coloured centres. The odd part was that the wing-bay (that part of wing seen when closed and in position) was in almost all cases stippled or peppered, or even pencilled—indicative of a partridge variety and not a laced—and in some specimens the feathers on wing-bows, back and saddle were stippled and peppered. The ground-colour of breast and wing-bows might be clean, but that on the back and saddle feathers was peppered. In other birds on a few feathers among the peppering might also have been found faint pencilling. Inner lacing, as we know it, was not pronounced on these single-laced females and might have been pointed out on a few feathers in some birds as just an indistinct black marking running into the ground-colour at base or along the quill of the feather. If you wished to make out a case for double-lacing you could have pointed to any of the pencilling or inner black markings or lines, but no hens had the clean-coloured wing-bay indicative of laced breeds.

Some of the hens were very dark and in the show-pen looked to be black fowls at the distance. Upon handling the feathers just had light coloured shafts all over the body, with neck-hackle black. Plenty of hens had wholly black necks no matter what the body colour. In like manner many of the males had wholly-black neck and saddle hackles or almost so, and the wing-bows of a number were black without colouring except in wing-bays. With the very first season of mating black Barnevelder pullets appeared in the progeny of the imported birds. Some coloured males were most

troublesome in throwing these self-blacks and individual hens too. One breeder to my knowledge bred over fifty such black female sports in one season from imported coloured Barnevelders.

CHAPTER III.

STANDARDISING THE BREED.

FROM the foregoing chapter readers may imagine the great difficulties ahead of standardising such an unstandardised breed. The material at disposal by way of guidance has been described in detail as regards the original importations. What were the standard markings to be? With leanings towards utility and that large brown egg typical of the importations, I endeavoured to place my influence on the side of simple colouring or markings. It was suggested fairly strongly by me that *the splashed or single-laced variety* be adopted as conforming to the majority of the birds imported. To make standard requirements simple and straightforward would facilitate mating and breeding and enable breeders to concentrate the better on the large brown eggs. With this defeated by the majority vote, I suggested *the stippled or partridge variety*, again for like reasons. *The double laced variety*, however, seemed to be carrying the majority vote. The difficulties of judging classes was seriously pointed out. How could one judge Barnevelders for double lacing when we had yet to see one among the imported birds? Exhibitors would import expensive birds as Barnevelders from Holland, they would buy sittings and chicks from English breeders as Barnevelders was one when judging to pass over all not double-laced as if they were not pure?

I was deputed to collect feathers from Dutch-winning birds and from English breeders with a view to drafting the first standard. What a collection! What difficulties of classifying! Naturally the first concentration was on feathers from birds that had won in Holland, therefore considered typical and true to colour. Wing-bar feathers of the male in winning Dutch birds varied from solid black to black-laced with red-brown ground, and to black fringed or ended with red. Each sender declared his set of feathers as the ideal. Feathers of Dutch-winning males equally varied from cape and wing-bows from black edged with red, black with red centres, and

red ending in black. An effort was made by me to purchase at any figure the best pair from Holland regarded by them as the nearest to their ideal. This failed and all I could get in substitution were sample feathers from such birds. It is of interest now to look once more at the illustration of the feathers obtained out of a *Dutch-winning double-laced pullet*. They may be seen elsewhere in the book and it will be noted that the breast feather of this 1922 champion is black with just a narrow golden shaft of colour, and no pretensions to double lacing.

In the end an advanced standard was drafted and submitted by The British Barnevelder Club to The Poultry Club, being accepted by that body. Here, then, is *the first standard* :—

Type: The characteristics of the Barnevelder are the upright carriage, the fairly long and full neck and tail, the high-set saddle and proportionate depth of the rump, by which the body appears compressed and gives a concave appearance to the back, which should be of medium length. The tail forms a graceful and uniform sweep.

BUILD OF THE COCK.

Head: Carried high with a neat skull.

Beak: Short and full.

Eyes: Very bold, bright and prominent.

Comb: Single, medium size, carried erect, well serrated and with a firm base. The heel must follow the neck.

Wattles: Medium for size.

Earlobes: Long-shaped.

Face: Smooth, unfeathered, or at most a slight sign of feathering.

Neck: Fairly long and full, carried erect.

Breast and Rump: Deep, broad and full.

Back: Medium length and broad.

Feathering: Fairly tight throughout and of nice texture.

Appearance: Alert, compact and well-balanced.

Wings: Rather short, carried high.

Legs: Thigh and shank of medium length to give symmetry.

BUILD OF THE HEN.

As in the cock, with differences due to sex.

COLOUR OF THE COCK.

Neck: Black with red, neck-hackle black, ending in red, and red stem with a broad black tip.

Breast: Black (beetle-green).

Back: Red-brown feathers with very wide black lacing.

Abdomen and Thighs: Black, with dark down.

Wings: Wing coverts, red-brown with broad black lacing. Flight coverts, black. Secondaries: inner edge, black; outer edge red-brown, showing when closed as a red-brown bar. Primaries: inner edge black, outer edge red-brown.

Wing Bows: Black (beetle-green), with wide red centre.

Saddle: Black, with red. Hackles black ending red, with a black tip.

Tail: All main feathers black, with beetle-green sickles and hangers.

Beak: Yellow, with dark point.

Face: Red.

Eyes: Orange.

Leg Colour: Yellow.

Lobes: Red.

Appearance: All black feathers and lacing which are visible to show beetle-green sheen.

COLOUR OF THE HEN (LACED VARIETY).

Neck: Black. A little brown in the upper part is permissible.

Breast: Broadly laced, black (beetle-green) feather with red-brown centre.

Saddle and Back: Double-laced with broad outer edging of black (beetle-green).

Abdomen and Thighs: Black, with black down preferred.

Wings: Flight coverts, black. Secondaries: inner edge, black; outer edge, red-brown. Primaries: Inner edge, black; outer edge, red-brown. When wing is closed a red-brown bar is formed.

Tail: Black, with a little red-brown in the tail coverts.

Legs: Yellow desirable.

COLOUR OF THE HEN (PARTRIDGE VARIETY).

Neck: Black, a little brown in the upper part is permissible.

Breast: Broadly laced black (beetle-green) feather, with red-brown ground, peppered with black and with narrow brown shaft. A black feather with wide brown centre stripe is permissible.

Back, Saddle and Wing Bows: Broadly laced, black (beetle-green) feather, with red-brown ground, peppered with black. A narrow brown shaft is permissible.

Flight Coverts, Secondaries and Primaries: Black ground, peppered with brown, showing a uniform appearance.

Tail: Black, coverts peppered.

Legs: Yellow desirable.

SERIOUS DEFECTS.

White in lobes. Squirrel, or wry tail. Feathered legs or toes, Sidesprigs. Crooked toes. High or roached backs. Seriously deformed breast bones. More than four toes on either foot. Black legs.

MINOR DEFECTS.

White in under-colour, flights, tail, wings, sickles or fluff.

I was not antagonistic towards the double-laced variety. What I then feared was that by turning the breed into an intricately laced one utility needs of the times might be sacrificed for lacing and the brown egg be lost, and that other breeds not reputed as brown-egg layers might be introduced by anyone keen on colour points to improve the lacing. If those keen on the fancy side took up the double-laced Barnevelder, why not have a more simple variety for the utilitarian who could concentrate upon the brown egg? For an equal reason when noting these black Barnevelder sports bred from fine imported specimens of the breed I supported this variety. Again the Club outvoted acceptance of the blacks.

It was quite obvious that the double-laced variety was to be made the main one by the majority, and that being so we have always striven to help it along from the start, never backward in helping beginners to understand the colour points in the aims of the Club, and giving breeders sets of ideal feathers to work to as a key. And always keen in judging to value those very points which make up the utility or laying requirements of a breed these days, striving *to combine utility with beauty*. The Dutch breeders must also have followed the double-laced ideal, and English opinion also demand, because whereas these were painted as the main variety, specimens seen at the last World's Poultry Congress were chiefly double-laced,

the females following our own, also the males, for colour. That the laced were the exception at the start, and now the rule in Holland as well as England, satisfies us. As more and more double-laced specimens were noted here as the seasons went by, so were they in Holland. With the standard drafted and the objective settled upon several of our breeders would visit Holland just prior to our own Club Show and bring back the best double-laced hens they could buy. For several years these Dutch birds represented our own winners in this country at the classics—in females. Dutch breeders, too, visited our classics for an interchange of ideas.

The first standard then covered (1) the double-laced female; (2) the partridge female, and (3) the *one male* that more or less corresponded to plenty of males seen. Obviously this could be but a temporary standard, with two varieties of females and one male only. It was left to time to solve more clearly the masculine problem. No scale of judging points was at first issued, but this was completed much later and is:—

SCALE OF POINTS.

Type and Size	..	..	..	30
Colour	..	..	..	25
Texture	..	..	..	15
Head	..	..	..	10
Legs and Feet	..	..	..	10
Health and Condition	..	..	..	10
				<hr/> 100 <hr/>

It will be seen therefore that utility has not been overlooked, texture having the special value of 15 points out of the 100 in all judging. At the same time standard weights were added, viz.:—*cockerel*, 6 to 7 lb.; *cock*, 7 to 8 lb.; *pullet*, 5 to 6 lb., and *hen*, 6 to 7 lb.

It was hoped that breeders by their matings would solve the colour problems of the males in due course. But while double-laced females improved slowly and males in great numbers quickly came up to standard colour requirements, *the partridge variety* has not taken on. It must be admitted that some excellent partridge hens and pullets have been exhibited, and “peppered” partridge markings in ground-colour have been bred out of the double-laced hens and pullets, so we see less to-day of the mixture of double lacing and stippling (peppering) on the same female than once was the general rule, when otherwise partridge-marked pullets in plenty had double-laced wing-bows. Matings have been on improved lines to secure such a change, these half-and-half females being discarded from breeding pens. But the partridge variety as such was not so completely and definitely bred as the double-laced. In short, the partridge enthusiasts did not come forward with a partridge male to their own liking and the exclusive opposite or mate for their partridge hens. Therefore it was not possible to standardise him

and put on separate classes for (a) double-laced males and (b) partridge males as had been originally intended and planned. The matter has not, however, been out of the minds of the committee all the time.

At the A.G.M. of 1929 a sub-committee was formed *to define the partridge male*. The opinions of most breeders were obtained, but there was not complete agreement, and the sub-committee made its report to the A.G.M. of 1930 to that effect. At that meeting another sub-committee was formed and instructed to arrive at some agreement without fail and to define the colour of the partridge male, reporting their findings for consideration at the A.G.M. of 1931. This sub-committee completed its work and was later asked by the committee to draft more definite wording here and there for the existing double-laced standard, upon completion to be submitted to the A.G.M. for confirmation. Below will be found (a) the standard as regards colour for the partridge male and (b) the more detailed description for the double-laced. All was submitted to the 1931 A.G.M. at the Dairy Show and carried, so that it must be regarded as the current official colour standard. The question of a laced breast for the double-laced male was also fully discussed at the same meeting. Agreement was obtained that a resolution be put up to the committee of the Club for the whole matter to be considered with a view to a special sub-committee being formed to recommend its findings to the 1932 A.G.M. Current colour standard reads:—

COLOUR OF THE COCK (DOUBLE-LACED).

Hackles: (Neck and Saddle): To match for colour and definition, each feather to be black (beetle-green) with slight red-brown edging and red-brown centre quill (stem) finishing black to tip.

Breast: Black (beetle-green).

Back and Cape: Red-brown feathers with very wide black lacing.

Abdomen and Thighs: Black (beetle-green) with black down.

Wings: Wing-bow and Wing-bar, red-brown with broad lacing. Secondaries: inner edge black, outer edge red-brown finely laced with black, showing when closed as a red-brown bar. Primaries: inner edge black, outer edge red-brown.

Tail: All main feathers black, with beetle-green sickles and hangers.

Beak: Yellow with dark point.

Face: Red. *Lobes:* Red. *Eyes:* Orange. *Leg colour:* Yellow.

Appearance: All black feathers and lacing which are visible to show beetle-green sheen.

COLOUR OF THE COCK (PARTRIDGE).

Hackles: (Neck and Saddle): Red-brown with distinct but small black tip; Fluff, grey; Quill, red-brown.

Breast: Black (Beetle-green).

Abdomen and Thighs: Black (beetle-green) with black down.

Back, Cape and Wing-bow: Red-brown with wide black tip. Fluff, grey. Quill, red-brown.

Wings: Wing Bar, black; Wing Bay, Brown; Secondaries, inner edge black, outer edge, brown (seen as wing is closed); Primaries, inner edge black, outer edge brown.

Tail: Main feathers, black with beetle-green sheen; Coverts, upper black, lower red-brown peppered with black; Sickles, black with beetle-green sheen.

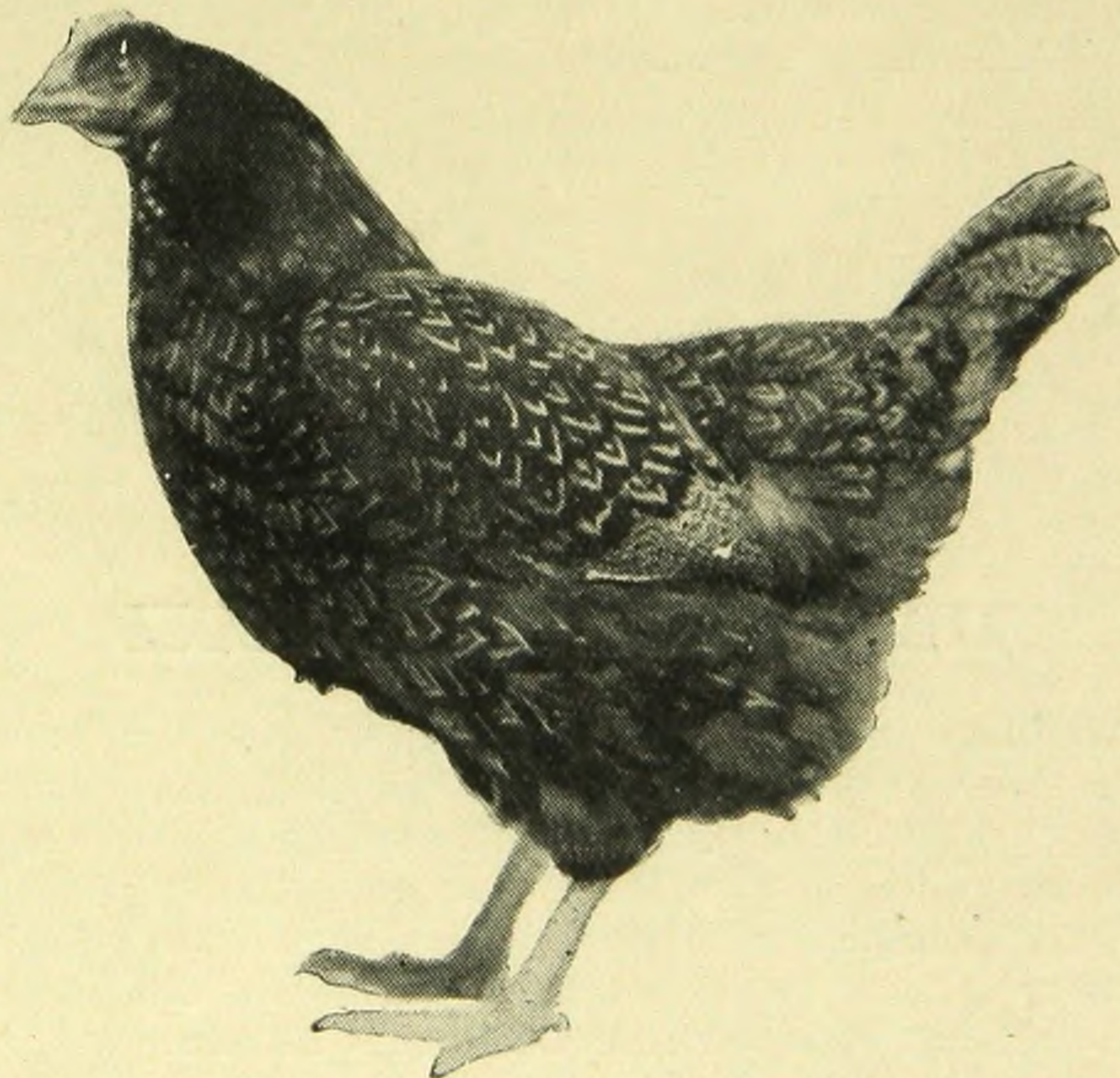
Appearance: All black feathers which are visible to show beetle-green sheen.

COLOUR OF THE HEN (DOUBLE-LACED).

Hackle: Black with beetle-green sheen.

General Plumage: (Breast, Saddle, Back and Thighs): red-brown ground clear of peppering. Each feather with defined glossy black outer lacing, and inner defined lacing; such outer lacing to be distinct yet not so heavy as to show a black appearance to the bird in the show pen.

Abdomen: Black with black down preferred.



A STUDY IN LACING. Taken by *The Feathered World* photographer.

Wings: Secondaries: inner edge black, outer edge brown, finely laced with black. Primaries: inner edge black, outer edge brown (when wing is closed a brown bar is formed).
Tail: Main feathers black with laced feathers well up to same. Under-colour grey.
Legs: Yellow.

COLOUR OF THE HEN (PARTRIDGE).

Hackle: Black (beetle-green sheen).

General Plumage (Breast, Saddle, Back and Thighs): Red-brown ground evenly stippled with small black peppering and clear of defined inner lacing or pencilling, each feather with glossy black outer lacing, such outer lacing not to be so broad as to make the bird appear black when seen in the show pen.

Wings: Secondaries: outer edge brown evenly stippled with small black peppering. Primaries: inner edge black, outer edge brown peppered with black.

Tail: Main feathers black, coverts peppered. Under-colour, grey.

Legs: Yellow.

This current standard will be dealt with in detail under the separate varieties, explaining the alterations or changes. Of the first or original standard it will be seen that the type, build and general characteristics remain unaltered, also the defects, and later additions, i.e., the scale of judging points with standard weights.

Colour requirements are for the future as set out above, and they came into use as from 1932. Classes will be put on especially for partridge males and much helpful data should follow.

A few words are here necessary perhaps concerning the laced breast in the double-laced male. Many breeders are in support of this. A sub-committee was formed at a meeting at Tottenham Show 1931 to consider the whole matter, collect data, and to report to the 1932 A.G.M. its recommendations on this point.

CHAPTER IV.

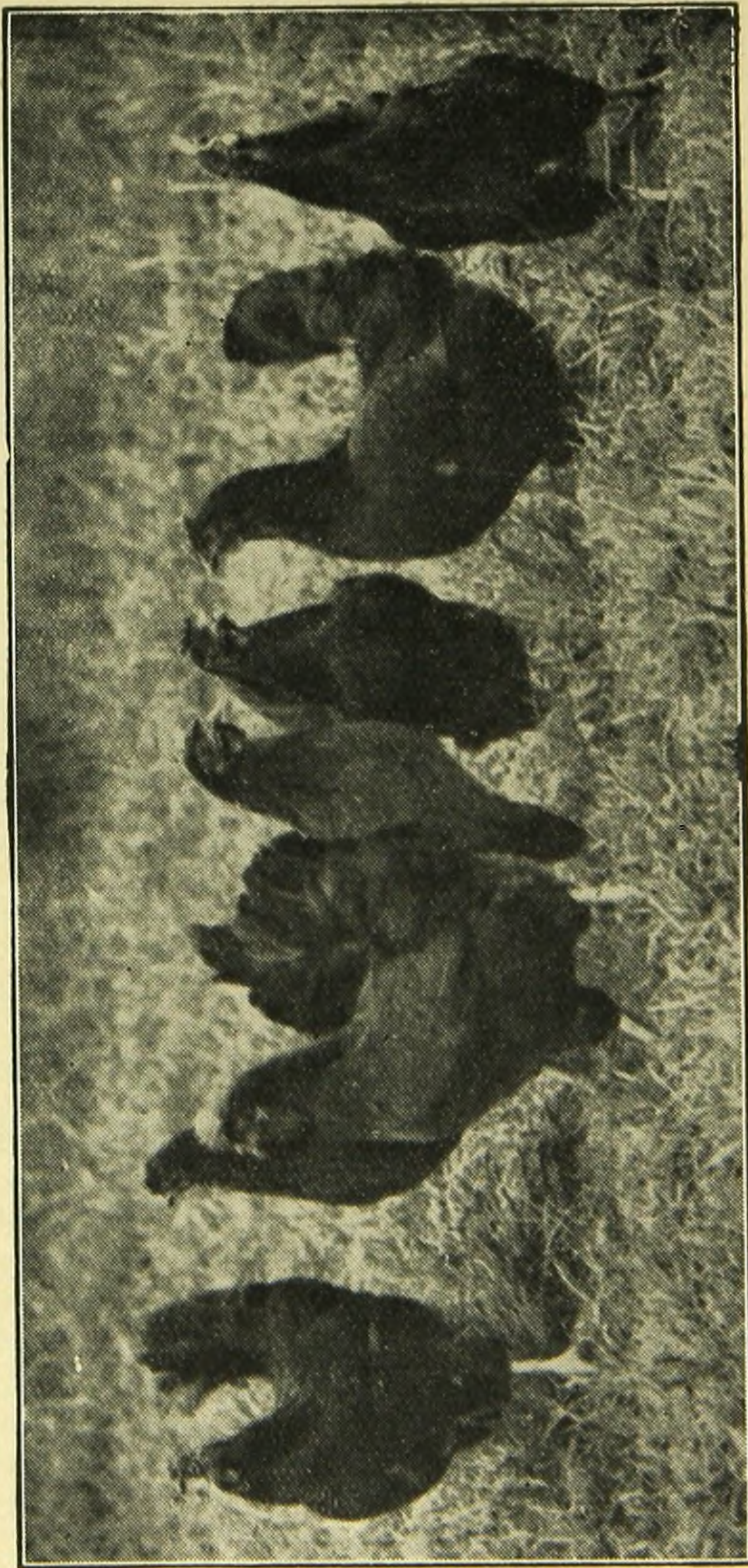
THE BLACK BARNEVELDER.

THE black came originally as a sport from the main variety. It was very common with the earliest imported Dutch stock to find in broods black chickens. Invariably these sports were pullets and at the end of each season some breeders would find themselves with a large number. Individual coloured cockerels were most persistent in throwing a great percentage of black daughters. What should be done with the latter? Several Barnevelder friends sought our opinion, which was to establish the black as a separate variety. After all, these pullets were pure Barnevelders.

In *the first edition of this book*, written in 1924, we wrote:—

“I have always supported the black Barnevelders because I consider that the more varieties a breed has the better its strength. It is all very well to argue that one variety is ideal because the money in it goes round. But the public is very odd in its tastes. Some like difficult varieties to breed, others have no time and call for a simple one. Realising too how difficult the coloured varieties of the Barnevelder will be to perfect except in due course of time and knowing that should some breeders take it in hand with no particular love of eggs whether in size or colour, they might give us the plumage-markings and not the size and colour of egg which have made the breed. So that my desire has been to encourage a variety or colour of the breed less difficult to breed from the colour view-point which utilitarians might take in hand and perfect along with the right type of egg.”

From the start we personally worked hard for the British Barnevelder Club to take the black under its wing in order to avoid any likely break-away. Always with the same tantalising result—a loss by the odd vote. Eventually *a separate breed club for blacks* was formed by enthusiasts of the variety, viz.: the British Black Barnevelder Club. It must be remembered that blacks were then being bred and exhibited in Holland, the home of the breed. This was at the time denied by those against them, but Dutch show-winners to our



LAYING TEST TYPE.

Birds of substance and refinement, with broad deep bodies, and full fronts and wide stance, selected by the author for a laying test and winning 3rd and bronze medal. Only a dozen 2nd grades out of over 1,000 eggs.

knowledge were already in this country in the breeding pens. Buyers of sittings from coloured pens were also getting some black sports, and several leading breeders of the laced variety were experimenting in their breeding operations with males very dark on back, wing-bow and in hackles. This but increased the tendency towards almost-black offspring in both sexes. Many Dutch coloured cockerels were solid black on wing-bows and in all parts except wing-bay, and some with a very slight trace of colour in neck.

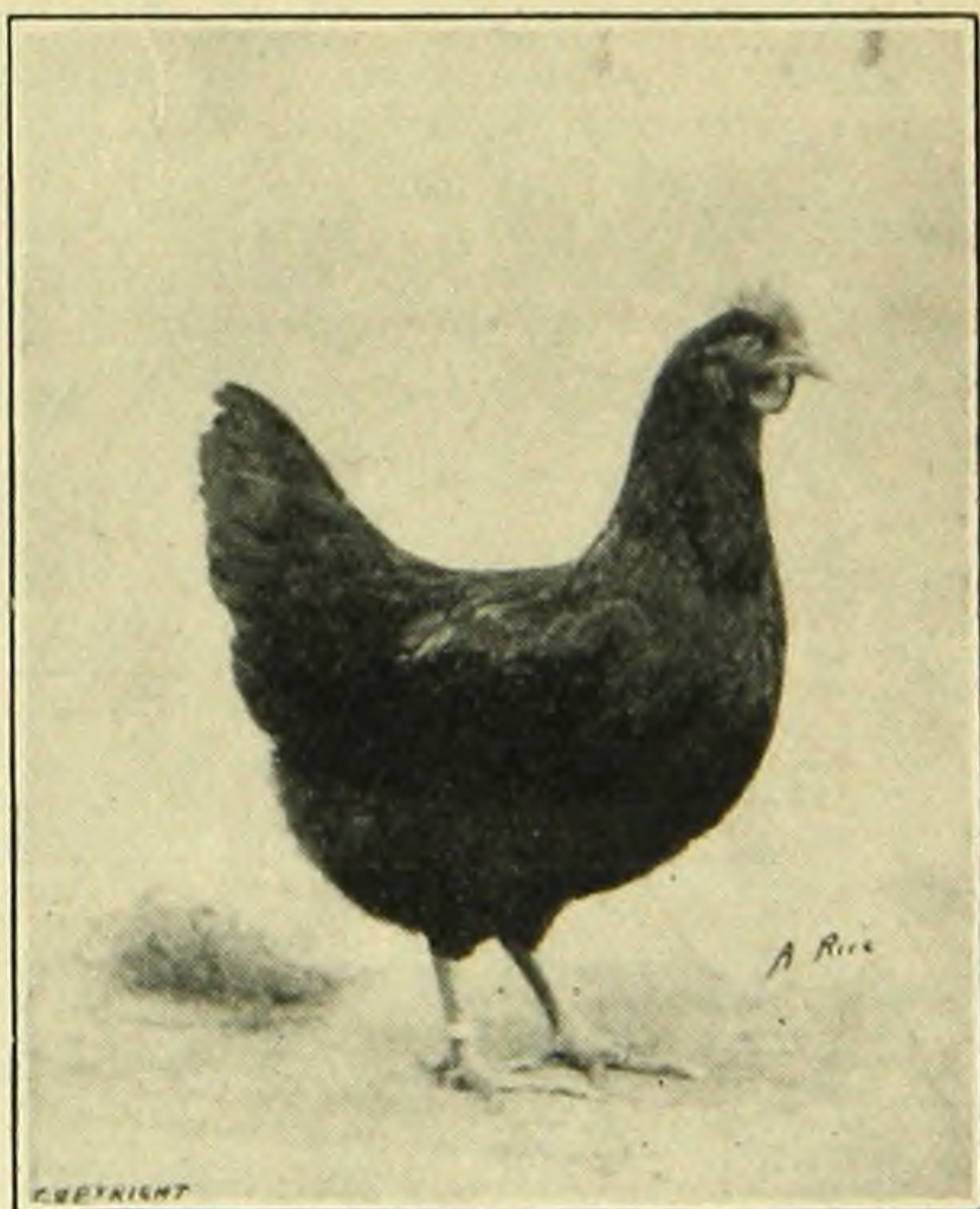
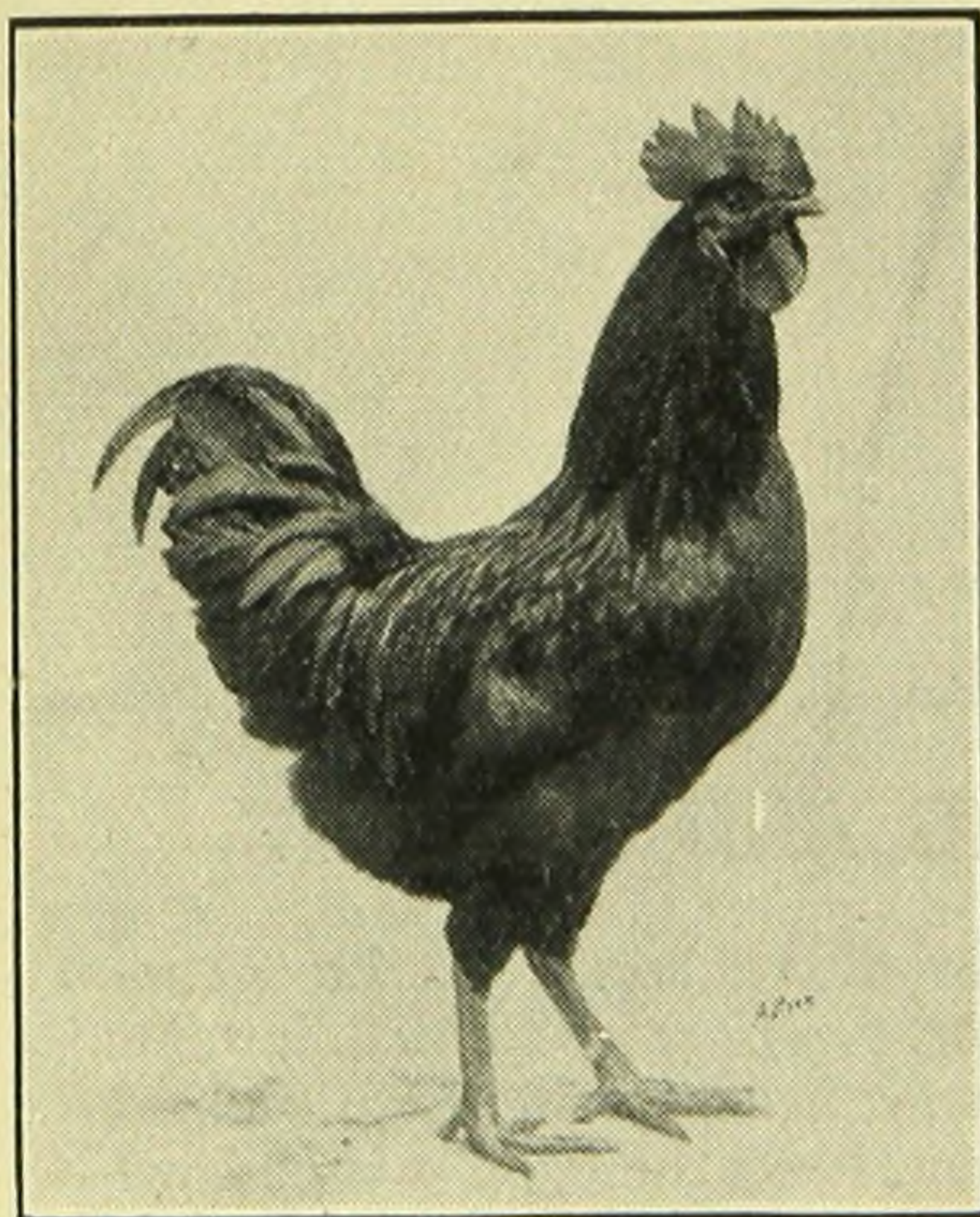
How to keep the blacks pure Barnevelders. We carefully drafted special declaration forms that have been in force from the start and are to-day. When you apply for membership to the British Black Barnevelder Club you are asked to fill in a form promising not to use Rock, black Wyandotte, or other alien blood. The committee pass in every name only when this completed form is in the honorary secretary's hands. Subscriptions are returned if the official declaration is not made, and one life membership fee is included among those so far not accepted because of refusal to sign. Then each breeding pen and its individual inmates possessed by the applicant must be registered on another declaration form, giving ring number, strain, source, etc., of each bird, accompanied by documentary evidence which the committee considers ere registering the birds. Finally upon winning a club cup or special the member must complete a form to say that the said winning bird is a pure Barnevelder.

One cannot do more than that to prevent the introduction of single-combed black Wyandotte, black Rock or the like blood, thereby letting down the variety and breed in egg-colour. Each would-be breeder of blacks is put on his or her mettle for honesty of purpose. That here and there black Wyandotte and like alien blood has been introduced despite such precautions we are quite prepared to admit, which is manifested by the *excessive feathering* seen sometimes on specimens in the show-pen.

A case of crossing we can fully substantiate concerns a Barnevelder breeder who was winning in the early days with a smart black cockerel or two, whereas he had always been against the variety. When tactfully approached he admitted it, so we appealed to his sporting spirit and those cockerels went at once to table and the pullets to the laying-shed. He, too, went up in our already high esteem of him as a true fancier. No birds of this crossing were in consequence distributed, and no doubt he merely wished to show how easy it would be to breed the blacks by introducing single-combed black Wyandotte blood. This was the point made by many originally against acceptance of the variety. We admit this too, and the similarity between the two is unfortunate, hence our planning of the declaration forms for the Club. It must be mentioned in fairness to the said breeder that he did not sign these forms and none of his birds could win club specials or cups, even if winning the class prizes. It would have been necessary, as stated, to have

declared especially each individual winning bird to be a pure Barnevelder on receiving the club special.

Fortunately to-day *fine strains of large brown-egg blacks* are available for anyone interested in the true characteristics of the Barnevelder; possibilities, too, for those wishing to take up the variety and to concentrate on the rich-brown product. Progress in the variety will be all the slower perhaps because of its similarity to the single-combed black Wyandotte sport, i.e., from the purely fancy view-



PAIR OF BLACK BARNEVELDERS.

Bred by Mr. W. C. Payne, The Chalet, Weston, Stevenage,
and Winners of many Prizes.

point. Breeds that are much alike do not take on strongly in this country and, but for the distinctive feature of the brown egg, we might not perhaps support it so keenly. From a utility point of view it is worthy of every consideration in the list of standardised breeds because of this brown egg. All taking it up should therefore respect and support the latter, and refrain from introducing foreign blood that will jeopardise the colour of egg. In doing so they should sign and honour the Club's safeguarding declaration forms. Very many are doing this.

Specimens of the blacks were duly submitted to The Poultry Club and accepted, so that *the variety is fully standardised*. Working for uniformity and co-operation the exact standard of The B.B.C. (as for double-laced and partridge varieties) was on our recommendation registered with The Poultry Club by the B.B.B.C. for the black.

Nor did the B.B.C. raise any objections thereto. By this programme of willingness to co-operate any antagonism that may have been shown at one time through the B.B.C. not accepting the variety has long since ceased to exist. The road is therefore clear for practical co-operation between the two clubs as regards club shows and classes, laying-test sections, etc. We have always striven to cement both sections.

The black variety therefore follows exactly its sister varieties as regards standardised breed characteristics in type, build, weights, scale of judging points, defects, etc. The colour points read:—

Plumage (of both sexes): Black with beetle-green sheen; *lobe*, red; *eye*, orange; *leg-colour*, yellow; *beak*, yellow, with dark point.

CHAPTER V.

BREED TYPE: AIMS AND DEFECTS.

AS regards Barnevelder type there seems to be general agreement to-day. *The upright carriage* is a chief characteristic, so that we start off with head carried high and neck fairly long and full, also carried erect. Next the back is broad, with breast deep, broad and full. The rump too is deep, broad and full, which thus ensures good depth in body. The back is medium for length, and with the high-set saddle and graceful uniform sweep to tail the outline of back from comb to tip of tail much resembles an elongated U with the tips of the letter evenly broadened out. It is thus not a breed of angles as of curves. The tail is full, and the general appearance alert, compact and well-balanced, with feathering fairly tight throughout, and thigh, also shank, of medium length. One may see very plainly in the full front, broad back, full tail and high saddle signs of the Croad Langshan.

Feathered shanks and toes were very common in the original importations and their progeny, no doubt traces of the Croad blood. Stiff quills down the sides of the shanks or between the scales represent a very serious defect because the failing is handed on very generally to the progeny. One should not use in the best breeding pens males or females showing this serious fault; nor any with feathers on hocks. It was common, too, to find birds with feathering between the toes. These soft fluffy feathers, while a defect, are far less serious than the stiff feathering down shank or on hock. One can miss the stiff feathers that carry down to the hock at back of

shank unless handling each bird especially for this defect. When making up the breeding pens examine each bird for these faults and look closely enough with purchased birds or when judging to see that no stiff quills have been pulled out leaving holes behind.

The high-set saddle can be so exaggerated that the bird appears with head down and saddle up, the tail going over to meet the head or neck. When on the run such a specimen has a stilted movement as if the rear part is trying to overbalance and tilt the front. Many of the early importations were very high in saddle and squirrel-tailed, but English-bred birds are now free of the exaggeration, yet one must guard against it with new importations. Have the head well up, front well out, and the combined symmetry with balance. Nor is it desirable to have soft feathery cushions in a breed with fairly tight feathering as a characteristic. Nor should the uniform sweep of the full tail be overlooked, in conjunction and balance with the rounding of the full neck. A common defect was high tail carriage forming an undesired right angle with saddle and back.

Length of leg is important for consideration in the make-up of type. A low-set, squatty bird is not typical; nor is a long-legged "gawky" specimen desirable. The Barnevelder is by no means a Leghorn for shape and such characteristics should be discarded most severely. Although thigh and shank are of medium length, a little of the thigh should be clearly seen to avoid squattiness. Yet length of leg and thigh should not be so excessive as to be accompanied with cut-away front. Table properties must not be lost sight of, for the true Barnevelder is a well-fleshed, all-round breed; hence Leghorn type should not be favoured. It is easy to obtain the Leghorn-shaped bird as it is just as simple to keep away from same. If one sacrifices the full front, depth of body and breadth of shoulders, the narrow pattern or racy Leghorn type begins to arrive, and with it the narrow saddle and pelvic arch, with closely whipped tail and long, sweeping sickles. Given excessive length of thigh and shank and the leghorn style is complete. By concentrating on breadth of back and saddle, with full front, deep body, short full or broad tail, with sickles just up and over, we keep to standard type. It is not an oblong-bodied bird like the R.I. Red or Sussex; nor a circular low-set Orpington. It has been likened to a Wyandotte, but there is greater length of body, although the great depth through body and rump would seem to draw it nearer to a breed of curves than one of an oblong nature. And we have the length of thigh and leg to get the upstanding carriage, with high head carriage.

Head points have improved out of all knowledge in English-bred specimens by concentration and selection. We can be pardoned for emphasising the earlier defects of imported stock and their progeny because importations still continue. The Barnevelder of 1921 had very bad head-points, with light and white eyes, thick skulls, lazy expression, side-sprigs and double ends to comb, etc. First of all

avoid overlarge combs and long, excessive wattles. It is a breed with medium-sized comb like the R.I. Red. The ideal comb is firm at base where it joins the skull, erect, well serrated and of a smooth fine grain. The heel at back follows the line of the neck. Avoid a beefy, coarse-grained comb, yet see that there is a good thick base to prevent the comb going over. Avoid, too, thumbmarks or hollows which will cause the comb to droop. A smooth comb around the beak is much preferable to one that is wrinkled and excessive at that part. Do not have a very deep blade or stem with small spikes; let there be good proportion of blade to spikes. Get the latter broad at their bases, as long, thin or pencilly spikes tend to droop over. A common failing is the double or divided spike, i.e., two in one, which will be handed on to progeny. The heel or leader of comb should not go up into the air or straight out at the back, nor should it be so excessive as to shake independently of the other part. Otherwise if easily shaken to and fro it will crack and ulcerate, which happens also where a hollow or thumbmark appears to turn the comb. Such ulceration is difficult to cure, as the wound continues to open and the yellow or cheesy matter eats into it. When handling a male bird I like to find the comb and its leader firm, moving with the head when the latter is shaken and not independent of it. In the female, too, avoid combs that are excessive and which tend to fall over as in the Leghorn or Bresse; aim at the firm, fine-textured comb that is erect and of symmetrical size. In the male, too, avoid coarse, beefy or fleshy wattles of excessive length; aim at proportion, smoothness and fine grain.

Sidesprigs to comb must be severely graded out, as this defect is handed on from father to son with regularity. To use a male with spikes jutting out from the end of the comb will be but to get the defect readily established in a strain, especially on the male side, for it is most dominant. Use for breeding males clean ended combs free of side-sprigs or double ends. For preference grade out of the best breeding pens hens with side-sprigs, double ends, or thick ends to comb; such birds with enlarged or thickened ends to comb can be breeders of defective combed progeny, more daughters perhaps than males. One should therefore take clean-combed males bred from like females. Abroad, in most countries, such defective combs represent a total disqualification. When buying a male examine the comb carefully to see that it has not been doctored in any way and that no feathers have been pulled out of the shank; if in doubt return the bird. Do not exhibit birds with sprigs under those judges who will not favour the serious blemish; some judges, on the other hand, will give the red ticket at the classics to a bird with the defect—although standardised as a serious one. The best and cheapest way is not to tolerate such birds in the select breeding pens; if they carry the brown-egg asset they may be put down into such pens for that exclusive use.



SOME FAULTY FEATHERS.

Top 1 (left): Minus outer black lacing and incorrect bars across; *2 (centre):* minus outer lacing; *3 (right):* yellow ground, horseshoe tip, barring or pencilling and no outer lacing. *Bottom 1 (left):* indistinct lacing and bit peppery but could be bred from; *2 (centre),* very peppery double-laced feather instead of clean red-brown ground; *3 (right),* yellow ground, horseshoe tipped and faulty markings; *4 (lowest),* indistinct inner lacing but could be bred from as outline is there.

Eye colour needs careful consideration, and this has equally improved wonderfully in English-bred specimens. It is a very easy matter, by non-selection, to have green or white eyes in a strain, and by selection after a time to establish good eye colour. The best way is to have the male with a sound red to orange eye colour, just as the male should excel in head points generally. And in the breeding pens one should give preference to birds of both sexes with sound coloured eyes. Such defects are more likely to get fully established in a strain where in-breeding is adopted, so that one might well commence with stock free of same, especially in males.

White in lobe is a serious defect to avoid, especially in males, as it so easily gets into a strain and spoils otherwise excellent birds, being so dominant. Having a good bird it is human nature perhaps to excuse the trace of white, but to do so is only to cause it to spread. In the female one may often find a lobe that will go pale according to the condition of the bird at the time. At a show, when judged, a pullet (or male) has a red lobe and later in the day it turns pale. This is not to be confused perhaps with white in lobe when it is really enamel white. Do not breed from males with the latter blemish, and if you must use a female do not take her sons for future breeding. When mating up examine the lobes of each bird (both sexes) and scrutinise the centres particularly, undoing any folds, and discard birds with the defect or any tendency thereto in the best pens.

Feathering should not be loose and fluffy at thighs or on cushion, as in exhibition Wyandottes and Orpingtons. The plumage should be fairly tight throughout, and this is a utility or laying pointer.

The utility requirements of the breed should not be overlooked by all who exhibit at the shows. They are very plainly set out in the standard which aims at an exhibition-utility combined ideal. One needs a good-looker, yet a good layer, and with that in mind the standard was purposely designed. The original importations, as stated, were often thick-headed and sluggish, also poor layers. English specimens of to-day are very neat in head, as laying stock should be. The standard aims include a neat skull, with short, deep beak, bold eye, smooth face, tight silky feathering and general texture. The whole to be alert, compact and well-balanced, with texture valued in the judging scale of points as 15 per cent. A neat skull, smooth face, with bold, bright and prominent eye, will keep us to an alert, intelligent laying type, as they are indications of productiveness. Judges, breeders and lovers of the Barnevelder should remain loyal to those aims in the interests of the breed; they mean so much by way of profitable and economic advantages these days. The Barnevelder is admittedly an excellent table breed, with well-rounded breast and good white-coloured flesh. Therefore we should retain body size while avoiding coarseness and inactivity.

Coarseness is very antagonistic to utility, and one should avoid heavy bone, whether in shanks, skull or breast-bone. The deep,

shallow V-shaped keel is not a desirable point, for it does not get well fleshed and will result in blisters, cysts and growths thereon from irritation in perching. Also it is usually accompanied by lack of front, heavy shanks and bone in general and lack of stamina or constitution. When taken in hand the body as girthed is best heart-shaped with keel less prominent but well fleshed, breast also full, and bone neat. Such birds ride easy in hand with head up and legs tucked neatly up. They flesh quickly and are more active. By all means let us have body depth and width, also substance and power, but with refinement. One can have a broad back with refined bones or a wide back with heavy, prominent bones; prefer the former. Small tight-fitting scales on shanks are to be preferred to the larger, coarser and raised scales that lead to scaliness so often. Flat-fronted shanks, as in heavy-boned birds, enlarged hocks and lumps on hocks at back of shank are most undesirable. These hard pieces on hocks denote so often slow growth and much sitting down in the growing stages as from leg weakness. With the flat-fronted shanks one may also notice in handling enlarged bones in the thigh. Fineness of pelvic-bone points will give us an indication of strength of bone or otherwise; size of spur will also aid us.

Superfiness in bone needs to be discarded in the ideal equally with coarseness. Specimens that are dry in shank, thin and devoid of fat should not be bred from, nor should those that handle light or are undersized, with small faces, superfine pelvics and a lack of substance in body. Some may be good layers and can go into the laying houses, but are not ideal reproducers. Note any signs of rickets or curvature of thigh bones and shanks, twists in the feet, badly crooked breast-bones, etc. Bone-weaknesses should be graded out. The short-legged dumpy bird showing little or no thigh is often weak-boned with curvature of thigh bone, noted when the thigh is handled. Small faces often mean small bodies. Get depth of face, from skull to jaw through the eye, depth and shortness of beak, full face, and refined skull, so that the eye is prominent when viewed from both back and front of skull.

CHAPTER VI.

COLOUR POINTS AND FAILINGS.

NO breed could have given breeders more problems to solve by way of colour-breeding than the Barnevelder. That it was a laced-and-partridge mixture is undoubtedly true. Take for instance the wing-bay of nearly all the females, and one finds it peppered or stippled as for a partridge variety. Yet had it been an exclusively laced breed one would have expected a clean coloured wing-end, with the secondaries edged with fine green-black lacing to form stepping-stones, and free of peppering. And when we have partridge or peppered feathers in the females we find each feather outer laced with black. Such stippled feathers in, say, the brown Leghorn and the Welsummer are free of outer black lacing. Continue further by casting one's mind back to earlier importations and one would find on the same bird stippled (but outer laced) feathers over breast, cape, back and saddle, yet find the wing-bows double laced. It is well known that the Barnevelder was used in the making of the Welsummer (which is a stippled or peppered breed), and maybe the two breeds, alike in large brown products, have been somewhat mixed by Dutch breeders. Hence the combination of the two varieties of feathers for markings in the Barnevelder.

The position at first was difficult because it was only *possible to standardise one male*, as near to the majority of those then bred. That lacing predominated in this male as described and standardised may be accepted in that the feathers on cape, back and wing-bow were broadly outer laced with black, each feather having a red-brown centre. One found plenty of Dutch- and English-bred males to answer to that description *in toto*. Variations in colour of neck and saddle hackles went from yellow to light red, with and without defined markings. It took some time for breeders to master the defined markings of hackles and to obtain agreement on the exact shade of red or red-brown. Once this was accomplished the males came in plenty answering to the standardised description of male. Small breeders who could not breed tip-top females could nevertheless breed some excellent show males, once they started with a typical good coloured sire with the right shade and definition of hackles. The males indeed displayed the greatest improvement and showed most uniformity.



MORE FAULTY FEATHERS.

Top 1 (left): Back and wing feather of male showing black edged with red instead of vice versa; *2 (centre):* back feather from hen as result of using No. 1 male, the black crowding out the ground-colour and markings; *3 (right):* a grey indistinct Partridge feather resulting from use of stock minus colour and too black. *Bottom 1 (left):* hackle feather in the laced variety almost all red, the neck generally looking all colour instead of black with red; but now standardised for the Partridge male, i.e., red-brown feather with distinct but small black tip; *2 (centre):* neck feathers of hen should be for preference black not with coloured centres as here when turned up and inspected; *3 (right):* some hens are splashed, viz., black feather with red or yellow centre shaft, which is incorrect.

Females did not show equal improvement and uniformity with the males at the start. In the first place the best specimens were few and far between. The majority displayed too great a mixture of double-laced and peppered feathers on the same bird. Too many were but laced-winged partridges. Gradually those showing partridge feathers on breast, back and cape were eliminated from the laced breeding pens and efforts were made to select the best samples for double lacing for the breeding pens. In that way the two varieties of females became separated. At the shows, too, there have always been separate classes for the two varieties of females, and this fact helped to get the more definitely marked females into the laced classes.

It will be seen from the original standard that the breast colour for females of the double-laced variety read:—

“Broadly laced black (beetle-green) feather with red-brown centre.”

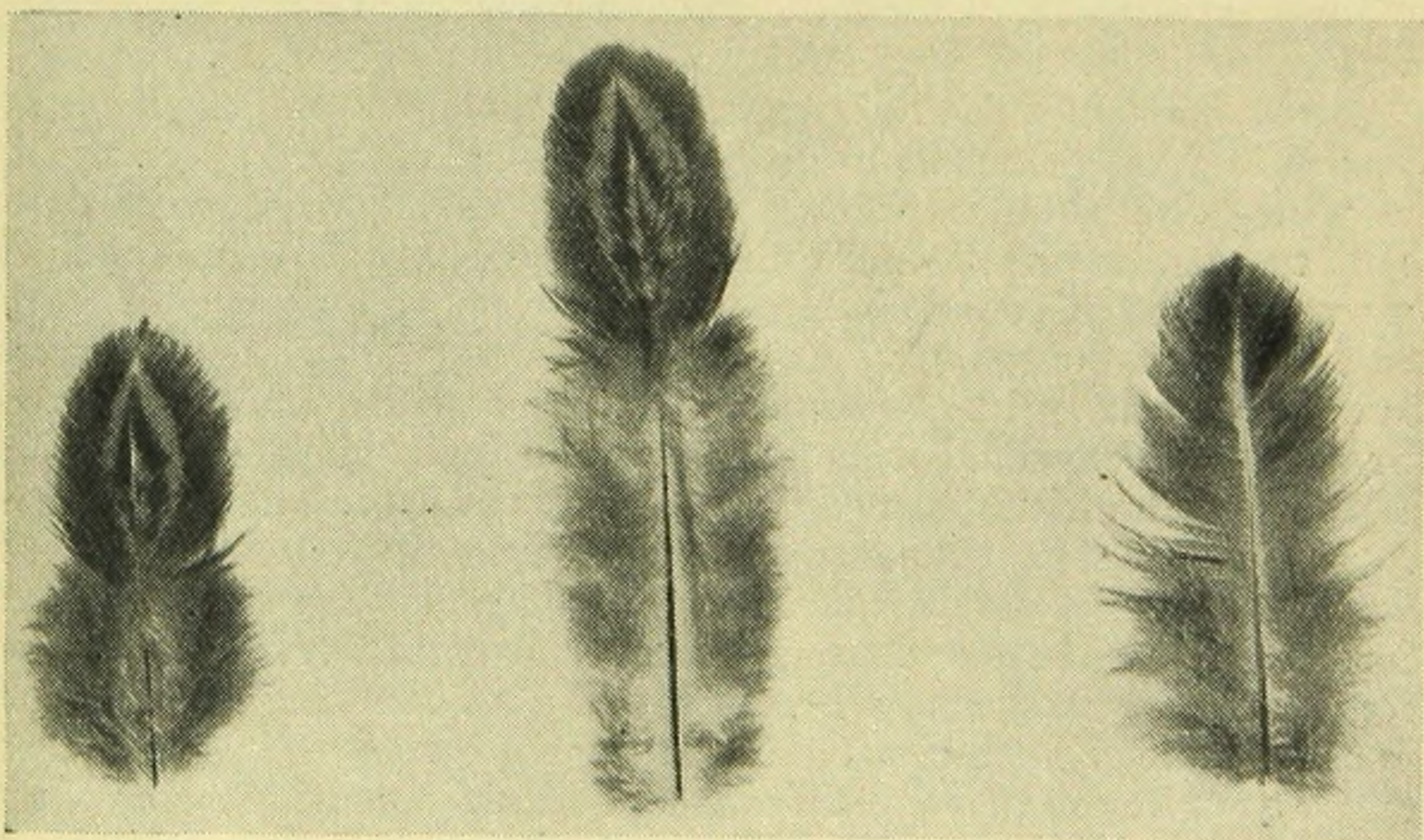
The description for the breast feathering of the partridge variety in the original standard read:—

“Broadly laced black (beetle-green) feather with red-brown ground, peppered with black and with narrow brown shaft (a black feather with wide brown centre stripe is permissible).”

So many of the earlier females had single laced breast feathers, either solid black with narrow coloured shaft or with broader coloured centres. Ground-colour varied from yellow, to brick-red, to brown. The sample feathers illustrated in this book and taken from the best Dutch pullet in the 1922 Barnevelder Show will be seen to include a breast feather that is black except for a slight shaft of golden colour. By taking for the best laced breeding pens females definitely double laced on cape, back and wing-bow, and even single laced on breast, improvement began to be noticed, and by taking too, for breeding those females clear of peppering in ground-colour. At first the double lacing became noticeable at throat and at top of breast, and as time went on more defined double-laced feathers spread down to the lower parts. To-day double-laced females display remarkably defined feathers for markings all over. In the past few seasons they have improved for ground-colour and lacing beyond one's expectations, and over all parts of the bird. In consequence the more detailed 1931 standard asks for a double-laced breast and no longer for the single-laced or shafty feather.

The partridge variety has not been persevered with. At first one or two breeders were showing some splendidly marked females, and it was hoped that they would observe their matings closely and supply the standard description for the desired partridge male. The majority however concentrated upon improving and making the laced variety, and of course, in discarding all females with partridge markings or tendencies, the laced dominated. Maybe some with partridge females mated to them males that were laced-bred, which would of course upset results. The partridge variety could

not be expected to be admired by those interested most in lacing and they ignored the colour. Those few starting with the partridges were not persevering, although one or two still remain loyal to them for utility purposes. Had they been taken up extensively and the male separately standardised earlier it would have been for the better. It would have been necessary to have marked all partridge-bred males and to have guaranteed them as such. At the shows one still sees some splendidly marked partridge Barnevelder females. Had the Welsummer come to this country first and fashioned a liking for peppered or stippled feathering this variety of Barnevelder might have taken on more. Some day a breeder may cross a partridge Barnevelder male with a Welsummer female and by clever selection get the colour of egg and plumage. Both have peppering or stippling



FROM A DUTCH WINNER.

Sample feathers from the best pullet in the Barnevelder Show, Holland, October, 1922, secured especially for the author to act as a key to the English standard. Description: *left*, wing feather (double-laced); *centre*, saddle feather (double-laced); *right*, breast feather (black with red-brown centre larger than a shaft). As will be seen from other plates English-bred specimens have shown great improvement thereon.

in the ground-colour of the females, but the partridge Barnevelder has the broad outer black lacing to each feather as an addition.

As already stated a definite attempt has now been made to standardise a separate partridge male, as will be seen by the 1931 decision and description. This will enable breeders interested in the variety to have separate classes at the shows for their males as well as females. If interest is then sufficient and the variety is persevered with those breeders breeding the variety will be known and partridge-bred males will be available. Time is needed to see how things will turn out, and to ascertain which matings will be best as regards results.

Serious and minor defects remain current as from the original standard. In the earlier imported specimens white in under-colour, flights, tail, wings, sickles or fluff was so common that these defects were standardised as minor ones. *White in wing* was a very usual defect and found in nearly all the birds imported or bred therefrom. In many it was so excessive as to affect both primaries and secondaries. For simple explanation the *secondaries* are the stiff feathers of the wing visible when the latter is closed; the *primaries* are the flight feathers of the wing tucked out of sight when the wing is closed. Counting the primaries we should have ten feathers, with a shorter or index feather following on next and dividing primaries from secondaries. We should treat any white in secondaries as very serious, trying to limit it to the primaries. Of course the ideal is to have sound flights, and the less serious of the defects may be a little white near the root of the feather, or at the extreme tip. To-day we have eliminated this wing defect in very many of our Barnevelders.

White in main tail feathers, especially at root, was also common in males, and may be said to go hand in hand with excessive white in wing. One should examine the main tail feathers from tip to root to get them black and sound. This, too, has been eliminated in most birds by selection. White in sickles was, too, an eyesore with early importations, the white going right up the feather. In most breeds, especially black-plumaged ones, a sound under-coloured neck may be expected to be accompanied by a sound black sickle. If the neck hackle is turned up and much white in under-colour is found, then we expect plenty of white in the sickles of the bird; if dark in under-colour then a sound sickle. The latter can be affected in a slight or extensive degree. Where the white travels right up the feather it is serious, and where only the root is affected with white it is less grave. In the latter case this white at root of sickle is so small as to be out of sight. Of course the ideal is to have a sound-to-root black sickle in the best breeding male because in reproduction it is a question of "like father, like son," and defects are most truly handed on. In buying a male see that he is fully up in sickles and also sound. Of course we have the usual practices on the show-bench of showing a male not quite up in sickles if there has been a tendency to any white, and of folding white parts in hiding beneath the main tail feathers. To-day birds have in the main become by selection sound in sickles.

White in under-colour was plentiful at first and exists to-day in males in a less degree. Dark under-colour is of course the ideal, and while these white defects are in the standard as minor failings we should keep them to a minimum in the best birds. When selecting between several males of almost equal merit give the preference for breeding always to the one with least defects, otherwise a strain becomes quickly inundated with faults. To use a male with several wholly white wing feathers for breeding is not asking for sound wings in the progeny. It often happens that after the moult a cock will

throw white in wing and sickles whereas he was sound in those parts as a cockerel. Admitted this is fairly frequent, just as in all breeds both sexes can change as regards plumage-colour with the moult. Yet in maintaining colour one would be well advised to rely upon that of the adult bird after the moult as of best value in breeding. Give preference then to those adults in hens and cocks which moult sound. To use adults that deteriorate badly with the moult may be but to get progeny with a like failing, i.e., good as youngsters and faulty as adults. Wherever there is a weakness or defect one may expect this also in the back-breeding of the bird.

Neck-hackle colouring gave much trouble in both sexes at the start. First of all it was a question of obtaining the ideal shade of red colour and definition of markings on the male's hackles. This was in due course mastered, and to-day most males seen on the show-bench have good colouring for shade and very many with correct definition. Females, too, gave much trouble. The early importations were very ordinary with very many of the females plentifully yellow in neck hackle, as were many of the males. The standard requirement for females was:—

“*Neck*: Black, a little brown in the upper part is permissible.”

The ideal was therefore a black neck free of colouring, but as so many showed colouring a little brown was allowed. The neck feathers of many imported Barnevelder females were black with golden lacing, and this may have been Welsummer blood. We endeavoured first of all to get the right shade of brown colouring in neck if the colouring happened to be there and to limit its extent to the upper part of neck or to the sides, avoiding any excess or striping. Other imported birds were solid black in neck. To-day the black neck has been generally obtained in females, although we have passed through the permissible stage of a little red in parts of the neck. In present-day laced females one may find slightly laced feathers in the underpart of neck but out of sight. We are dealing with a male that has a coloured black-and-red neck and can understand therefore traces of colouring coming up in the females. Excess of colouring in the female's neck should not however be permitted by standard requirement.

Importations continue from Holland and we see many of them, as we see matured stock from time to time hatched from imported eggs. Taking the exhibits of the breed shown at The World's Poultry Congress, 1930, held at the Crystal Palace, we were rather pleased with them. Many hens seemed to be well laced and most of the males following our own for type, colour and markings. They would be carefully selected birds of course and made a nice uniform display. At the Congress, too, were shown officially by the Dutch Associations a grand array of coffee-brown eggs laid by Barnevelders and Welsummers along with typical trios in each breed. Here, too, the birds were excellent and the females nicely laced. Talking with

many friends who had been over to Holland to purchase stock, visiting breeders in all parts, several there seemed to specialise in well-laced females. For the most part, however, the brown egg is the main objective and the colouring of the birds much as it was with the earlier importations. One may thus expect males with hackles on the yellow side and many females that are yellow in ground and very yellow in neck, and other females too that are very dark with a centre splash of colour to each feather, and stippled feathering on back and saddle. Taking selected hens that have been brought over recently (1931) they have not been as well laced as the best that have been bred here. A few have excelled, but too many have had very broad outer lacing, narrow ground-colour and somewhat undefined inner lacing, with breast markings deficient. On some there has been much peppering in the ground-colour and the latter has often been on the light or yellow side. Others have been well laced on wing-bows but peppered on breast and back, the mixture noticed so often at the start. Nevertheless the majority have laid large brown eggs, and that is what counts most in Holland.

In buying from Holland one must be careful to select reliable breeders, whether eggs, chicks or stock birds. And one must be prepared to pay well for typical brown-egg stock. In that country markets are held for the sale of (a) live birds and (b) new-laid eggs. The great collections of large brown eggs gathered together in such markets are a feature and most appealing to English visitors. On the other hand stock purchased in the markets as Barnevelders can be sent to buyers here if one chances to trade with dealers, and undoubtedly much rubbish has been sent to this country by them in recent years.

CHAPTER VII.

THE DOUBLE-LACED.

A STORY is told about the earliest imported Barnevelders that is probably exaggerated! At a show a crossbred pullet escaped from its pen in the "likeliest layer" class and a steward picked it up from the ground and inquired of another what breed it was. "Barnevelder" was the rejoinder, so he promptly put it in the only empty pen in the class for Barnevelders, the owner not having sent his exhibit. The judge placed it first, so the report says, and there the owner found his bird carrying the red ticket when looking for the missing cross-bred.

Judging a class of males at any show to-day and a collection of pullets next to it one has to admit the very great improvement achieved in the breed in ten years. Then there was no uniformity of colour and markings. To-day we find uniformity in general type, colour and markings. Combs free of side-sprigs, lobes clear of white, eyes of good colour, and head points much neater, with more alert appearance. Very few of those coarse heavy-skulled females and sluggish layers are seen on the show-bench to-day. And the double lacing on the females is distinctive enough on all parts of the birds to attract the most ardent fancier. The Show Barnevelder of to-day has a touch of class about it and winners are built on good exhibition-utility lines. Club judges, too, keep clear of exaggerated points and study closely utility requirements when placing the cards.

The standard requirements of *the double-laced male* are set out on another page. Various definitions for hackles have been given from time to time. The original one read: "Neck: black with red; neck hackle: black ending in red and red stem, with a broad black tip." The current standard says: "Each feather to be black with slight red-brown edging and red down centre quill (stem), finishing black to tip." That is a clearer illustration and especially when compared with the original Dutch one of "black with red," which may be true to the eye but conveys little or nothing by way of distribution of colours. Picture a beetle-green black feather with a line of red running down the stem or quill, the outside fringes towards the end of red-brown, and the tip black. The neck and saddle hackles to match for colour and definition and the red-brown to be of the bright shade. The common failing here is to have

yellow edgings instead of red-brown, and there are other defective shades from brick-red to the "carroty" pattern. One should get the right shade in the best males in order to maintain it in the progeny. Besides, it is pigment that helps the ground-colour of the female, whereas yellow tends to give the yellow ground. Next have definition in distribution of colours, although a good bird may not have the red quill or stem and another may have a red-brown centre somewhat wider than the quill, especially at saddle.

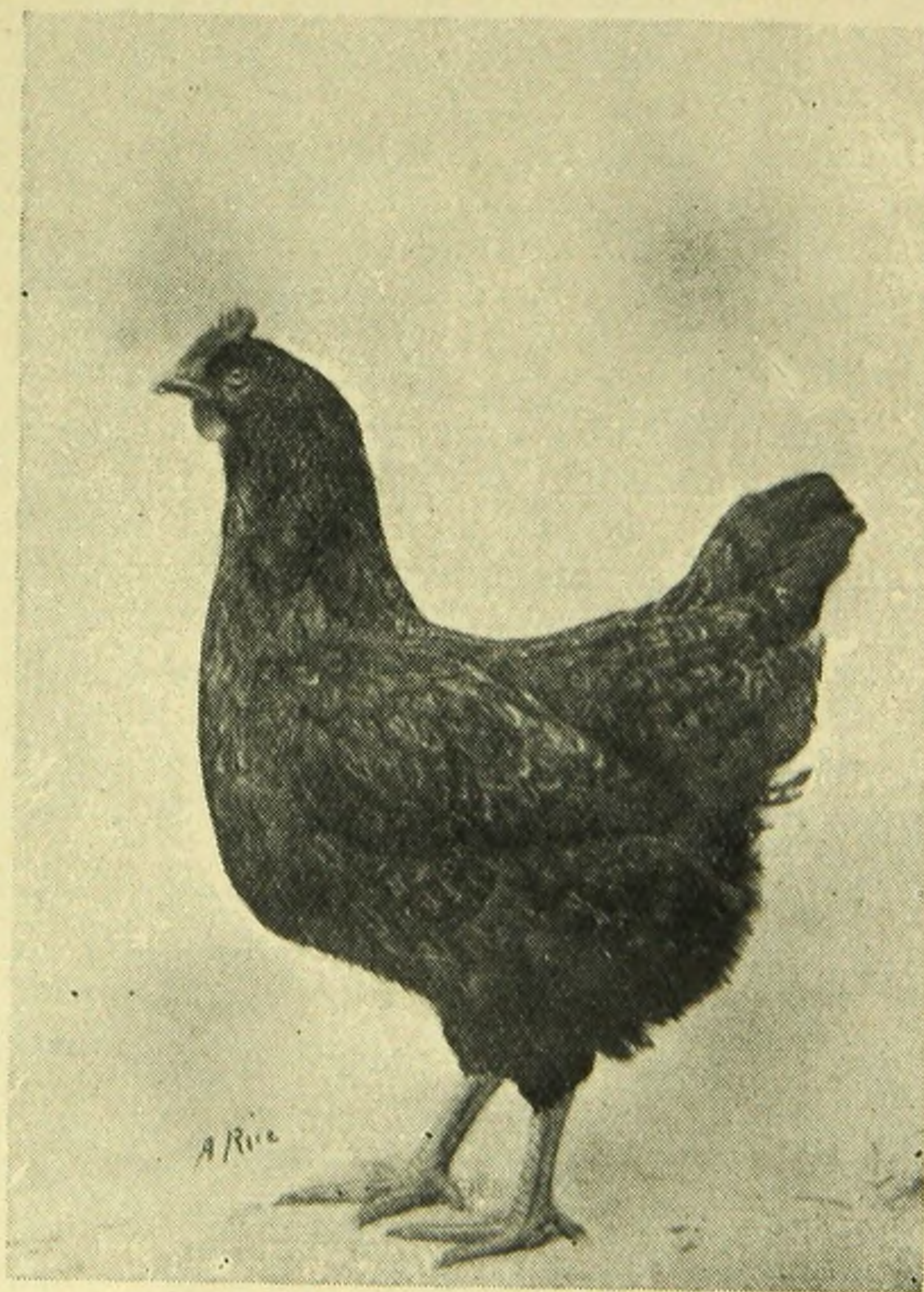
The cape feathers should be red-brown in the centre with wide black outer lacing to each. It may better be understood as a black feather with a red-brown centre. The back, wing-bow and wing-bar also carry the same description, each feather black with red-brown centre. In the best specimens the centres are fairly large, yet in many the centre colouring is there, but narrow. This is better than a complete absence of centre colouring. In some faulty birds the wing-bow is totally black and in others the hackles are almost black, also the cape and back. This type of male was in the past freely experimented with for breeding, but with an idea to produce dark-necked pullets. It was not successful because the progeny pullets leaned towards heavy black lacing with narrow coloured ground or centres. In fact they looked almost black to the eye until one moved the feathers apart. Dark males tend therefore to fill in the ground-colour by broadening the outer lacing and to breed sons similarly dark. One could establish blacks that way, a practice that was at first resorted to. Another common failing is to have an almost wholly black feather with a red-brown end or finish.

As regards the wings. Secondaries: inner edge black and outer edge red-brown, finely laced with black to show when closed as a red-brown bar; primaries: inner edge black and outer edge red-brown. Spread the wing out, and starting with the top or secondaries, we have the first half (outer) of each feather red-brown with a fine lacing of black round and the other half (inner) beyond the centre quill black. We then come to a small and short index feather that separates the set of secondaries from the ten bottom flight or primary feathers. Each of these ten (usually) has an inner half of black and an outer of red-brown. Starting from the top one reads: brown and black, then black and brown. The ideal is to aim at fine black lacing around each secondary to form stepping stones as in a laced Wyandotte male. A common failing is to find the black inner half of feather in secondaries spreading into the red-brown outer half towards the end. Then when the wing is closed the wing-bay or wing-end looks black in part instead of red-brown. And white in wing, as already discussed, is another common failing.

The black parts are to be glossy with beetle-green sheen. Avoid a dull grey or purple. The lacing, too, must be of beetle-green sheen, and maybe the male influences the black points, hence

the importance of getting him right. Get the sound black tail and sickles, avoiding the white defect, already dealt with. See, too, that the male has as perfect head points as possible, with body-type and texture.

In *the double-laced female* the hackle is black with beetle-green sheen. Leniency was made in the original standard as regards



A WINNING DOUBLE-LACED HEN for Mr. Forbes Brown
(Late Mr. Norman M. Grant's).

breast lacing, a broadly laced black feather with red-brown centre being allowed. The current standard calls for the following class of feather for breast, saddle, back and thighs, also wing-bows of course: "Red-brown ground clear of peppering, each feather with defined glossy black outer lacing and inner defined lacing." This outer lacing must be of beetle-green sheen and must not be so heavy as to make the bird appear almost black in the show-pen. In other words, one should be able to see the laced feathers without having to move them aside in the hand. With a good specimen on the ground or in the pen one may see the double or inner lacing. Common failings here are many! It is well to have the ground-colour a true red-brown, as undoubtedly the female in breeding may

dominate this point. On some faulty birds the ground-colour can be yellow, brick-red, light red or grey. One next needs a clear ground, clear of peppering or specks. Other defects are barring across the feather, yellow shafts or quills, and outer lacing that is heavy at the end (horse-shoe fashion) and thin at the sides. Again the dark under-colour (of fluff) may extend into the ground-colour.

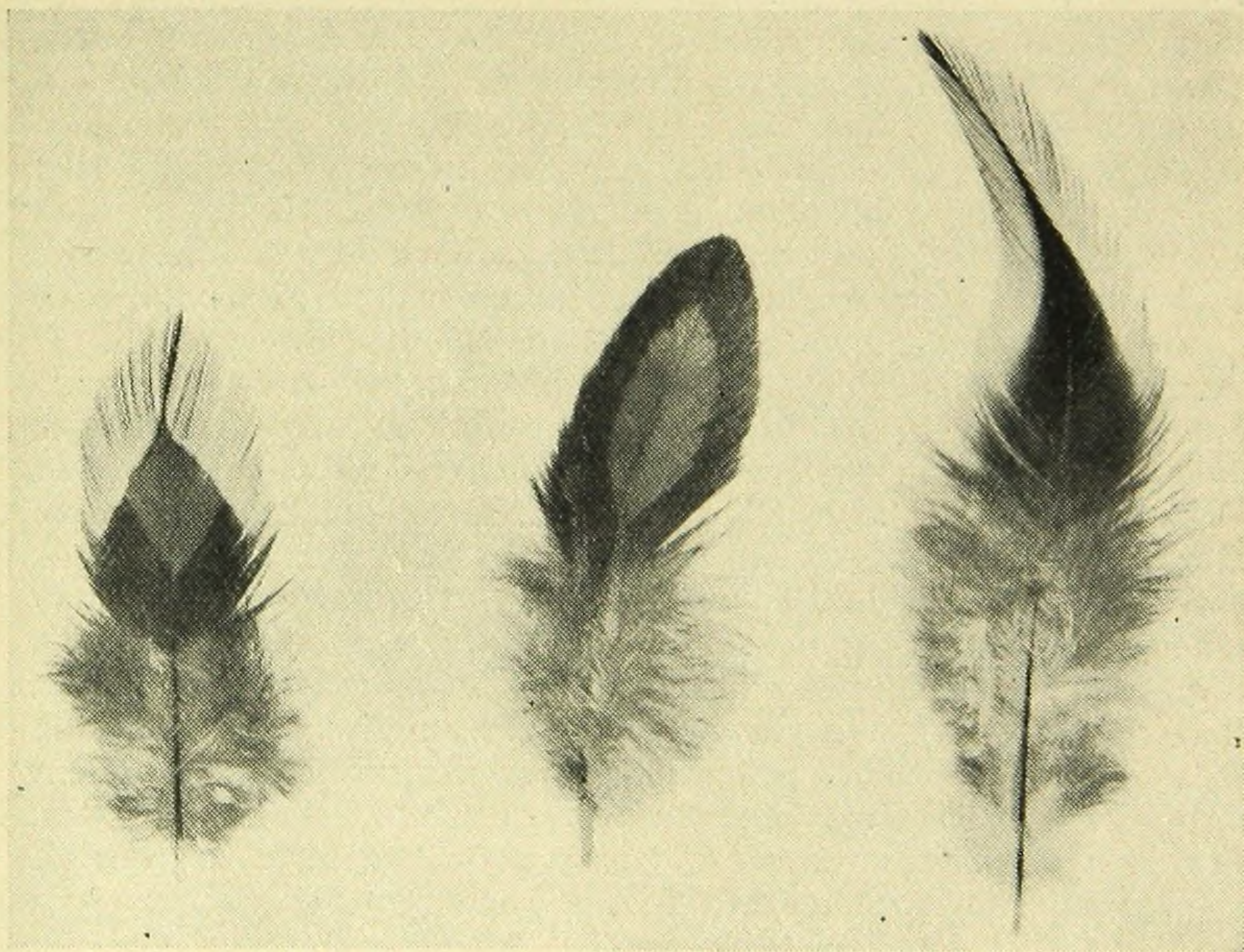
A double laced feather starts off with a broad line of beetle-green black round the outer edge; directly within this outer line or lacing is clean red-brown ground-colour, followed by an inner defined line of black lacing, with clean red-brown ground-colour inside that. In some birds one may find a third line of lacing or traces thereof next the quill of the feather, not, perhaps, a demerit point. In fact, breeders of double-laced breeds like the Indian Game appreciate such treble-lacing. Weaknesses in lacing may be expected at breast and at saddle as the tail is approached. In an otherwise excellent specimen the lacing may be less definite near throat; again, it may finish indistinctly at the lower part of breast. As regards the saddle one may find the lacing indistinct as the tail is approached, the standard now asking for the laced feathers to go well up to the black tail. It is well to avoid females that show a mixture of double lacing and stippling, for in some we find mainly peppered or partridge feathers, with the exception say of double-laced wing-bows.

The wings still present difficulties which convinces us that the breed has both partridge and laced blood in it.

Originally the wording was: "Secondaries: inner edge black; outer red-brown; primaries: inner edge black and outer edge red-brown; when wing is closed a red-brown bar is formed." By "bar" it of course means wing-bay, end or triangle. This description remains, except that to the secondaries are added: "finely laced with black." One thus arrives at stepping-stones, as in laced breeds. Oddly enough we have not so far in females achieved the clean red-brown wing-end or bay, the birds having stippled feathers as denoting partridge tendencies. But with the two varieties now separated one may expect improvement in this direction in due course.

Black points include a black neck, tail, abdomen and down. Naturally it is against Nature for the two sexes to differ in neck colour, the male to have plenty of red colouring and the female to be solid black, free of red. One may therefore in over-doing the red colouring in the male get traces of red in the female's neck. Personally I would prefer to see this than to compel double-mating for such a small point. In the first place it should be the right shade of red-brown and by no means excessive or prominent. One may see hens with every feather in the neck edged on both sides with yellow or gold and even with an additional yellow stripe down the centre. A faint red cast may not be so detrimental in parts, say in higher section of neck or to the side below the cheek; or in

the underpart of lower hackle. On the other hand, if the females become too red-brown in neck one may find it necessary to mate to them a male with rather dark neck to put things right. On the show-bench a black neck is to be preferred and a slight trace of red



TAKEN FROM A DOUBLE-LACED COCK.

Left: The correct laced feather for cape, back and wing-bow, viz., red-brown centre with broad black outer lacing. *Centre:* correct wing bar or coverts, viz., red-brown with broad black lacing. *Right:* correct hackle feather (neck and saddle to match), viz., black feather, edged near end on either side with red-brown, finishing with black tip, and with red stem or quill down centre.

would be penalised; but limit the amount. Lacing on the underpart of neck might not be so penalised, when out of sight, as the standard asks for a black neck to the outside appearance. Besides, in the best laced specimens one may well find lacing in the lower or under hackle. One should avoid white in wing, as with the male, and aim at dark under-colour with red-brown quills next to skin, the same with the Barnevelder male. If one turns up the feathers on the wing-bow and finds white or grey parts to quills next the skin there may well be a tendency to white in wing and light under-colour. We prefer a red quill right up to the skin for dark under-colour, and the desirable blood pigment, with dark under-colour adjacent to the skin. In like manner grey or white near the skin in the quills of the wing-feathers may denote slight tendency to white in flights, etc., but not so much as with excessive white in the feathers. T

tail feathers, too, should be black to skin without white or grey parts at the roots.

Adult plumage, as stated, may be difficult after the moult in the Barnevelder as with other laced, etc., breeds, depending on back-breeding. One may of course find a well-laced pullet moult out as a hen with indistinct lacing and peppering to ground. Generally speaking, however, the laced hens improve with age and each moult, so that a fairly good pullet may show improved and more defined lacing as a hen. Such laced feathers, too, may extend to breast, back, thighs and saddle. Equally an early-hatched pullet that takes a false moult after laying a few eggs can come up much improved in lacing, especially on breast, back and saddle. Some moult out with lighter ground-colour, but one should give preference to adult hens for breeding that retain the desirable ground for colour and clear markings. In like manner cocks on the dark side as cockerels may throw up more of the desirable red-brown after the moult; and cockerels with excessive red-brown colouring in hackles may with the moult lose some of the black and become rather too coloured. A cockerel black in breast may as a cock show up with lacing and colour on breast or thighs, yet there may be deterioration in that the abdominal fluff may moult out whitish or greyish, and there may be white tips to plumage in parts. In all colour breeding it is best to give more credit marks to young birds that are excellent and which as adults moult out excellent continuously. Breeding from pullets must always be doubtful, because a good pullet can be a very poor hen for colour in all breeds; only the moult can decide. A good matured cockerel can also be a very inferior adult cock. Back-breeding and selection must decide these points.

CHAPTER VIII.

LACED-BREASTED MALES AND BREEDING THE LACED.

IN recent years laced-breasted males have become more numerous, and coinciding with same the females have improved in the lacing, especially on breast. We can be quite unbiased in either direction, yet can fairly state our observations. By laced we mean the presence on the male's breast of feathers broadly laced on the outside with glossy black and with full centres a red-brown. The females were at one time splashed or single laced on breast with similar or dark thighs, and the better ones were double laced at the top part of breast only, but dark to peppery towards the lower half. To-day there is clear definition from throat to thighs. No doubt the use of males with laced breasts has done much for certain breeders towards obtaining better laced breasts and thighs in females with cleaner ground and more defined lacings generally.

At all times have we had lacing of kind on the breasts of many Barnevelder males; even many of the original imported birds and some of their progeny would show splashed breasts or traces of single laced feathers somewhere on breast. Usually several such feathers were on each side of the breast or near the throat, sometimes on thighs, no doubt corresponding to the single-laced breasts seen in so many of the original females. The time came when many males on the show-bench showed a few laced feathers at sides of breast not very noticeable and often out of sight. Maybe their sires at home had more breast lacing. Then a male bird with completely laced breast was exhibited in a breeding-pen class at the Crystal Palace under me, gaining 4th prize. One could hardly grade such a pen out if believing that such a breeding-pen would give better breasted females. After all, it should be the aim in breeding trio classes to encourage pens that, mated as they are shown, will give results in progeny as against three perfect standard birds that so mated may not breed at all well. It is a controversial matter, but classes for trios should be as near to practical breeding as possible.

An attempt is now being made to have the double-laced male standardised exactly as for the present standard for him, *but with a laced breast* instead of a solid black one, the breast of course to be

perfectly laced, each feather with red-brown centre and glossy outer black lacing. Whether this will succeed or not must depend upon the majority vote of Club members at the A.G.M. of 1932. Meanwhile a special sub-committee has the matter in hand and will report to that A.G.M. Many breeders for 1932 mated up their breeding pens to include one or more headed by laced-breasted males. For some years mention of laced-breasted males has been made and they have been employed in the breeding pens. Not till the latter part of 1931, however, was a resolution tabled that the matter be considered, and a special sub-committee was at once formed for that purpose.

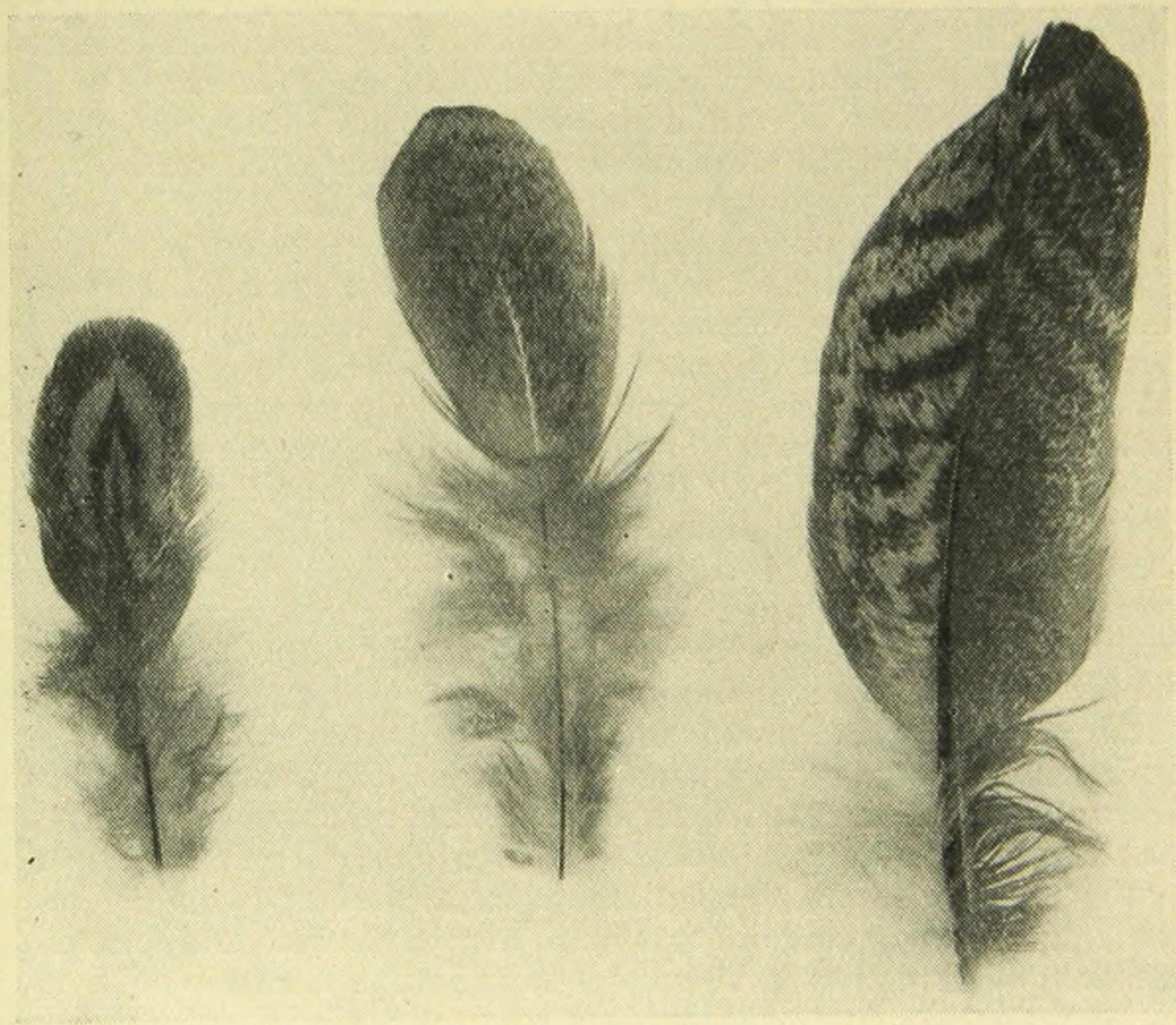
With many breeders to my knowledge using such males at the heads of their pens it means that laced-breasted males have been distributed. Once this happens the number must greatly increase through the sale of sittings and the future use of cockerels owing descent from a male with a laced breast. Again, through the use of hens or females hatched from purchased eggs which were sired by a like male. The chances, too, of the Club accepting a laced breast for males in the future have been sufficient to persuade many breeders to keep one or two back for use and for reserve. Naturally if a complete swing over from black to laced took place a year's notice should be given after the decision ere the one type predominated or was reckoned exclusive, or maybe both black and laced breasted males could compete in the one class for a given time. We must not attempt to throw out hints and suggestions while the sub-committee is sitting, but obviously a standard work on the breed cannot go to press without reference to this class of male with laced breast. Otherwise if it was accepted readers would find no helpful hints herein on the type of bird in question.

In breeding laced females, those who adopt the use of laced-breasted males would mate them to their show females that excel in ground-colour and lacing, their aim being to produce as perfect specimens as possible in double-laced pullets. Naturally at the moment their sons cannot be show specimens when they come with laced breasts like their sire, unless the standard is changed. Should any sons happen to have almost black breasts, except for a little lacing at side of breast or at thigh, these might be exhibited. Earlier on, when such males were not completely laced on breast, they may have bred a good proportion of sons almost black breasted. Laced all over the breast their sons may mainly carry an excess, especially if back-bred for such. Yet a few may come with splendid sheeny-black breasts.

In breeding males for exhibition it is obvious that such mated pullet-breeding pens cannot produce the perfect show male in greater numbers, i.e., males with solid black breasts. I do not know what all the advocates of the laced-breasted males do in this direction, but they must obviously mate up separate pens to produce show cockerels as well as relying on black-breasted sports of the

laced-breasted sires. The heads of such pens will of course be as near to the present standard black-breasted male and himself a show winner. To such males they would not obviously mate their show pullets or hens and might take a darker type of female as the mate.

On the other hand, there would be another field of thought working in a different direction. Such would prefer to avoid



LACED AND PARTRIDGE.

1. *Left:* Double-laced feather showing very desirable broad outer black lacing, clean ground and inner lacing.
2. *Centre:* A well-stippled Partridge feather but minus any broad outer lacing, a serious fault.
3. *Right:* Stiff wing feather of Partridge showing faulty pencilling on one side and desirable peppering on the other.

double-mating by mating the black-breasted show male to the well-laced show female, having the one pen to produce both sexes for exhibition. As long as poultry have been bred for colour, the question of *single versus double mating* has been a matter of controversy. And it always will be. The double-mater who puts together one pen to produce exhibition cockerels and the other to yield exhibition pullets contends that by so doing he is able to get nearest to perfection in colour and markings in both sexes. He argues that the

single-mater may breed tip-top specimens of one sex and but good ones of the other from his one mating. Once one starts with a good show male of the black-breasted type it is not difficult to get plenty of sons like him. We have noticed that from the start, even when pullets bred from the mating were not well laced, and single-maters would contend that blood tells, and by observation they will breed both good males and females from the one pen, if not supers in both sexes.

Double-mating to our mind does not help a breed. For instance, one breeder specialises in cock-breeders and another in pullet-breeders. To mix the strains is not wise and one must mark every bird most carefully. Besides, the novice is not sufficiently up in the subject of breeding to understand what is meant by cockerel-bred and pullet-bred. He dodges the cockerel-bred lines, as he thinks they breed more cockerels, and prefers pullet-breeding, hoping to get more pullets. In all our judging, and in the standard from the first, we tried to keep the male as near a pullet-breeding cockerel as possible. Hence our strong support of liberal red-brown centres to feathers on cape, back and wing-bow. Any tendency to get the males black topped was fought against as compelling double-mating, for such males must breed very dark pullets. That the show male is a pullet-breeder is confirmed with the addition of a laced-breast. Here we take it is the contention that signs of lacing on the breast point out the bird as good for breeding lacing and that he improves breast lacing where a black-breasted male may not give the highest-class breast lacing and definition. What is to happen?

One pen to breed both sexes is undoubtedly for the better, and if by having a laced breast in the show male we can breed both show males and show females with the same mating, that must be preferred for the sake of novices to double-mating. Those at present single-mating, using show males and show females together in the one pen, may probably contend that it is a matter of strain and selection and they can breed as good females therefrom as the users of laced-breasted males. That will perhaps form the platform for future arguments. For my part I should always support ease of breeding, and as far as judging goes and so long as the majority tell me what is the breed's ideal, it is just as easy to sort out for one thing as any other.

Mating up the pens will be difficult just now with the field of thought so divided. Naturally it will be very wise for every breeder to buy his birds of either sex with great care. If he uses a male that is almost black on breast, hoping to breed black-breasted show sons, then he may obtain progeny with laced breasts as the bird purchased was so bred. There must be no guesswork and all chicks should be clearly toe-punched or marked as to the way bred. Many are using laced-breasted males this year (1932) in certain pens, and by the end of the season they will be the better able to express an opinion on the results compared with their standard

matings. This is all for the better. Some have especially purchased males with laced breasts, and others have found such a bird or two among the chicks reared from purchased sittings.

In looking over the hens it is well to keep the standard needs in mind ere selecting the best for the choice pens. Avoid using in such pens any hens that show a mixture of lacing and peppering. First start with the cape feathers, found across the shoulder and directly below the hackle. We always think that such feathers in males and females give us a good idea as to the variety—partridge or laced. And we must not mix the two or use for breeding sons of hens that were mixed in colours and varieties. Finding these feathers at cape well laced, we next are keen to have the wing-bow, well laced, and finally the breast. Put such hens aside as double-laced; you can then go over them again for the best of the lot, sorting them into grades as to their merits and defects. Discard as double-laced any that have the cape and wings laced, but the breast, back and saddle peppered or partridge-marked. Admittedly I use discretion over the saddle and tail parts, because it is a common defect to find feathers in such places in excellently laced birds. Get cape, wing-bow, breast and back right for double-lacing, and any such birds that continue with the lacing up the saddle and to the tail can be placed in a higher pen than those that are peppered on saddle. One so often finds almost perfect stippled feathers against the tail even in hens otherwise well laced all over, so that this is obviously a weak point in the variety. Secure rich ground-colour in the best hens.

In looking over the males we may at the moment decide to use a show black-breasted male with some of the best hens and to make up a pen with others of our best laced hens headed by a pullet-bred laced-breasted male. Of course if these latter hens are pullet-bred and sired by laced-breasted males and the male used, all the better. As the former hens will be best sired by show males, exceptions can be added and their progeny marked. In fact, it is wise to mark chicks to the individual in the best pens so that by observation we can see which matings or hens give the best results. One hen may breed excellent daughters and fair males and another will give excellent sons and fair daughters. If using both kinds of males and matings one must naturally toe-punch or mark the chicks from each pen in order to guide one in future matings. And in buying stock one should ascertain from the vendor just how each bird is bred. If one prefers to keep to the one type of mating until a decision is reached over the laced-breasted male it will be well to mate show black-breasted males to standard well-laced females. The marking of chicks is most important so that one may know that the male used in the best breeding pen is out of an excellent double-laced dam, sired by a male equally bred from a laced dam. To wait to the end of the season and then to find a nice cockerel without knowledge of his individual breeding is risky when he is placed

with the best laced hens. He may be from Pen 5 and from but a fair hen. Besides, one must now keep the partridge and laced separate and back-breeding for lacing over some generations will bring results.

When culling cockerels in the young stage note any laced feathers in the chicken plumage. Mark such birds as likely to be dominant for lacing and they can be considered later along with breeding and pedigree. Also at maturity or earlier watch the cape feathers and give preference to those cockerels well laced at this part, with feathers red-brown in centre and broadly outer-laced with black. Discard partridge-marked cockerels at cape and wing-bow if specialising in the laced variety.

When making a start it may be as well to rely upon one breeder if purchasing stock birds, as he can best supply a male and females to match. To get a male here bred one way to go to hens bred there another way may not give the best results. In like manner after buying sittings or chicks when it comes to mating them up the advice of the same breeder-vendor might be sought as regards supplying a suitable male to use with the best of them. A breeder knows his matings and which type of cockerel will go best to, say, Pen 2 progeny from which the purchased eggs or chicks came. And one should ascertain exactly how the birds are bred for future guidance in matings. In all coloured breeds put quality before quantity, buying a trio at a given price as against a mated pen of ten or twelve hens and a male at the same price. And good stock in coloured or difficult breeds are never as cheap as in simple self-coloured ones.

The resolution that the special sub-committee is now considering is quite straightforward, to the effect that the present standard for breast colour in the double-laced male be altered to read, "red-brown feather broadly laced with black," or words to that effect. As stated, the acceptance by the A.G.M. at the Dairy Show of 1932 will have to be obtained for any such resolution to be carried. If it fails then many breeders in support will continue to use laced-breasted males mated to show hens to breed (1) double-laced females up to standard, (2) laced-breasted males for breeding but not show purposes, and (3) a certain percentage of sons that although sired by laced-breasted males will themselves come almost black and of a desirable lustrous sheen in breast-colour, and which will be exhibited. Such breeders will mate up other pens to produce (4) show cockerels, taking a standard male and mating him to some well-laced hens and other females on the darker side and with like back-breeding. That will mean double-mating. Others will continue to use show males to show females to remain loyal to single mating, being content with the quality of both sexes produced thereby.

If the laced-breasted male is accepted it will dispense with the need for double mating and there will be a greater difference

between the breast of the laced and that of the partridge male. Naturally the change over if accepted should be gradually carried out. With the road then straight ahead one will mate laced-breasted males to the best laced show females. One will endeavour to get the males well laced all over breast. Maybe thigh lacing will accompany this, but the judges will have to solve future problems when placing their awards.

CHAPTER IX.

BREEDING THE PARTRIDGE.

SOME excellent partridge Barnevelder females have been shown during the year (1931). We have in mind several that were completely stippled on cape, wing-bow, breast, back and saddle, as near perfection as possible. Popular fancy went with the double lacing and most concentration has been made in establishing that variety. The partridge variety has received much less particular attention, for which reason, no doubt, a standardised male was not forthcoming as originally anticipated. Yet sufficient breeders have always been interested in the variety, so that any wish to drop it and to concentrate exclusively on the laced was at once negatived. Several keenly interested in the partridge variety from the start have plodded on with it for utility, but have not been extensive exhibitors, sufficiently at any rate to bring it to the front.

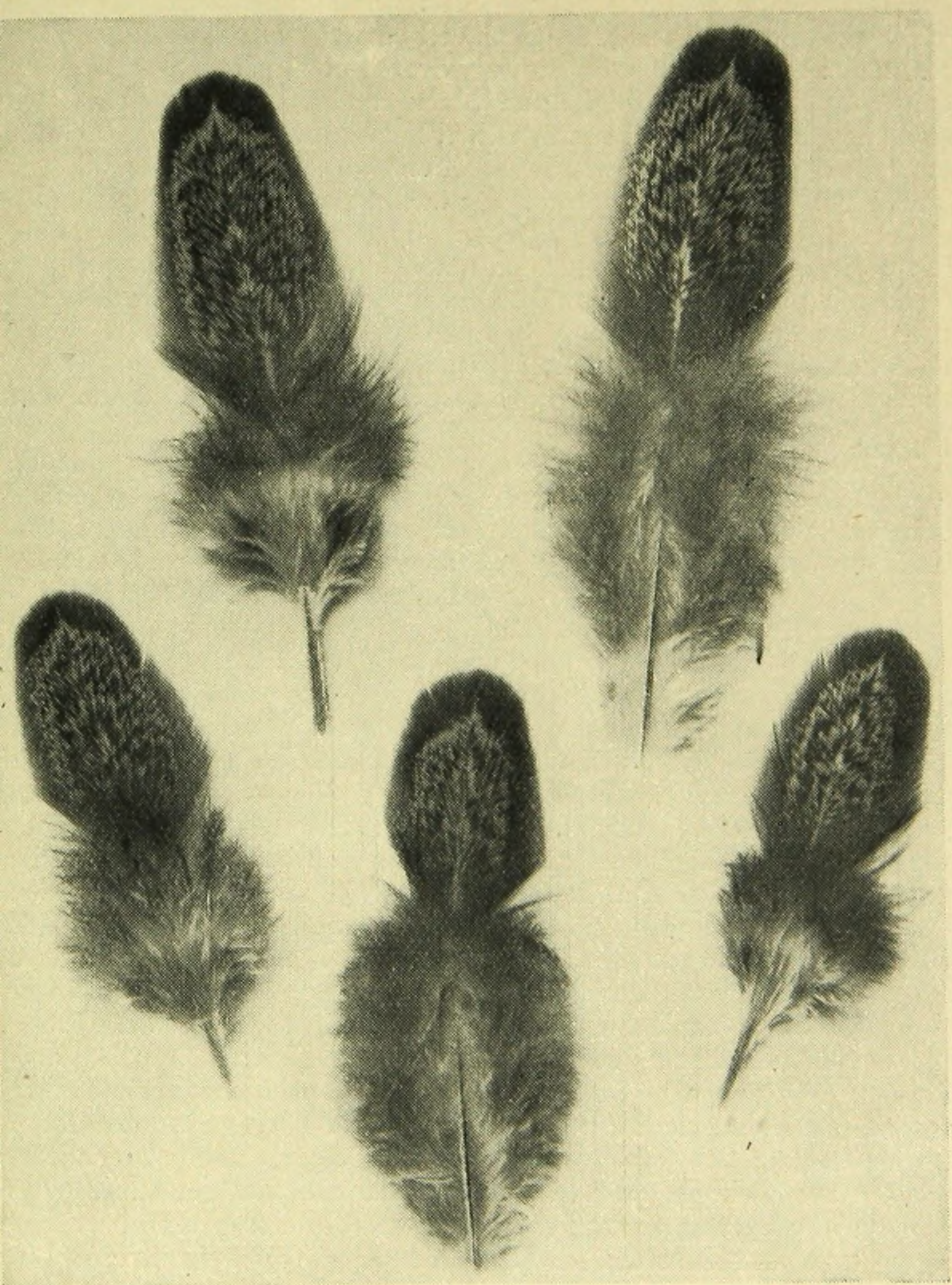
Those familiar with the breed in its early days will remember the amount of *partridge feathering* on the birds imported, shown and bred. Such specimens easily outnumbered the double laced, which were indeed few and far between. Even when the more definite lacing began to appear on specimens one would find stippled feathering on breast, back and saddle of the same bird, with lacing on the wing-bows. As lacing spread to the back and upper part of breast one still had stippled feathers on most of the breast and at saddle. What perfectly stippled feathers, too, one could obtain from the saddle of the laced specimens, as one can from some of them to-day.

The name "partridge" is somewhat of a misnomer in this country for this variety, as one begins to think of definite pencilling,

as in partridge Wyandottes or Rocks. The idea of the partridge Barnevelder never followed that line of argument. A typical feather is "red-brown in ground, evenly stippled with small black peppering and clear of defined inner lacing or pencilling, with glossy black outer lacing." Get a piece of paper and draw a feather. Next pepper it over evenly with small black dots of ink with the pen. Then thicken the outer line of the feather to represent lacing and paint all the centre over with red-brown. In the original standard we brought into use such words as "peppered" and "stippled" to give a clear explanation of the desired markings and to differentiate between partridge-pencilling. The majority of the birds at first showed such peppering. In the first place every female, almost without exception, had a completely peppered wing-bay. One would find peppering fairly extensive on cape, back and saddle; on the wings of many, too, but with slight traces of inner lacing or barring, and on the lower part of breast even with the upper part single laced. The outer black lacing was always present which one associates with a laced breed and not a partridge. At first the standard permitted for the breast black feathers each with wide red-brown centre stripe.

The present standard for the female calls for evenly stippled feathering throughout for breast, saddle, back, wing-bow and cape. The neck hackle is to be black and the tail black with peppered coverts. As regards the wing—secondaries: outer edge brown, evenly stippled with small black peppering; primaries: inner edge black and outer edge brown peppered with black. To get a key to the ideal feathering one may best examine a stippled feather near to tail, or when next at a show ask the club judge to show you the winning bird and ideal feathers to work to. That, too, will give you a better idea as to what red-brown really means in males and females. Many have contended that such stippling is mossiness as met with in laced breeds, and others that it is associated with pencilling; both cannot be right. And if it is a pencilled breed, why the outer black lacing? If a laced breed exclusively, why the stippled wings in nearly all females? The arrival of the Welsummer in this country has made breeders more familiar with peppered or stippled feathers, for the females of this brown-egg breed have this class of feathering. Some have associated it with brown Leghorn and others with partridge Leghorn blood. Dutch authorities tell us that they put the Barnevelder into the Welsummer to aid the brown egg, which may account for the peppering in the former. As breeders are taking up the Welsummer many may get familiar with this style of peppered plumage in the female and take up the partridge Barnevelder.

A standard for partridge males has at last been drafted, and while it is an experimental one it is undoubtedly a move in the right direction. As regards the neck and saddle hackles the markings are less defined than in the double-laced. After the grey fluff comes a



PARTRIDGE HEN FEATHERS.

Top: nice ground and stippling but heavy in black at tips (horseshoe) and could be a little more defined in black edging at sides. *Bottom: centre*—well edged all round with black lacing, nice ground and stippling. *Right:* nice lacing but "pencilly" as against stippling or pepper.

solid red-brown part with a small black tip at end. In like manner the back, cape and wing-bow will appear red-brown with wide black tip to each feather. In the laced variety, when examining the feathers at cape and wing-bow, we are looking for a red-brown centre to each with broad outer black lacing. In the partridge we shall not expect to find such defined lacing, for after the dark fluff part of feather the rest will be red-brown except for the black tip. There will be no extension of the outer black lacing up the sides of the feather. If it were just a peppered feather desired in the female it would be simple to draft a standard for males. As each stippled feather is outer laced it is not so easy and no other breed carries such a feather. The black tip in the form of a laced end may help the outer lacing in the female; we shall see. The male to answer the standard for colour will appear ruddy on cape, back and wing-bows.

The breast, thighs, abdomen, wing-bar, tail and sickles will be *black*. As regards the wing-bay this will be brown, the secondaries being brown on the outer edge (seen as the wing is closed), and black on the inner, while the primaries will be black on the inner and brown on the outer. The wing-bay will thus be brown without any outer fine lacing.

When mating up it will be well to sort the hens into grades. Start always with the cape feathers and get these peppered or stippled and not double-laced. Then having an index to the partridge leaning (another helpful index might be any stippled feathers in under part of neck), see that the wing-bow is stippled, next the breast and then the back and saddle. Birds stippled throughout should be set aside for the best pens, and from these should be taken the cockerels for future breeding with completely stippled hens. All chicks should be marked so that their exact breeding will be known to aid future matings for accuracy. Continue to use those hens with distinctive stippled feathers at cape, and put into lower categories those that are peppered here and on most other parts except for indistinct inner lacing here and there. For instance, the next best might be hens stippled in cape, wing-bow and breast, but faintly inner laced on saddle and back. Next will come those stippled on cape, breast, back and saddle, but faintly laced on wing-bow. Cockerels should not be taken from these, but always from the undoubted partridge hens, so that after selective breeding for a time back-breeding will count. Hens poor in breast but stippled on cape (the first place to look at), wing-bow and back can all be used, even if the breast feathers are single-laced, or splashed or striped with colour. Always use males bred from partridge hens.

Study ground-colour carefully, because one is endeavouring to avoid any trace of yellow, grey or the like to get the desirable standard, red-brown as in the laced variety. Take the sons of hens good in ground-colour. Try to breed pepperering into those hens

that are but faintly inner laced with the major part peppered, instead of as in the past trying to turn them into double-laced breeders, providing the cape answers to partridge markings.

The partridge male bred from a partridge hen and nearest to the standard must be used to start off the line, when put to such partridge hens. If purchased from a breeder known to breed the partridge variety, of course so much the better. One must at least,

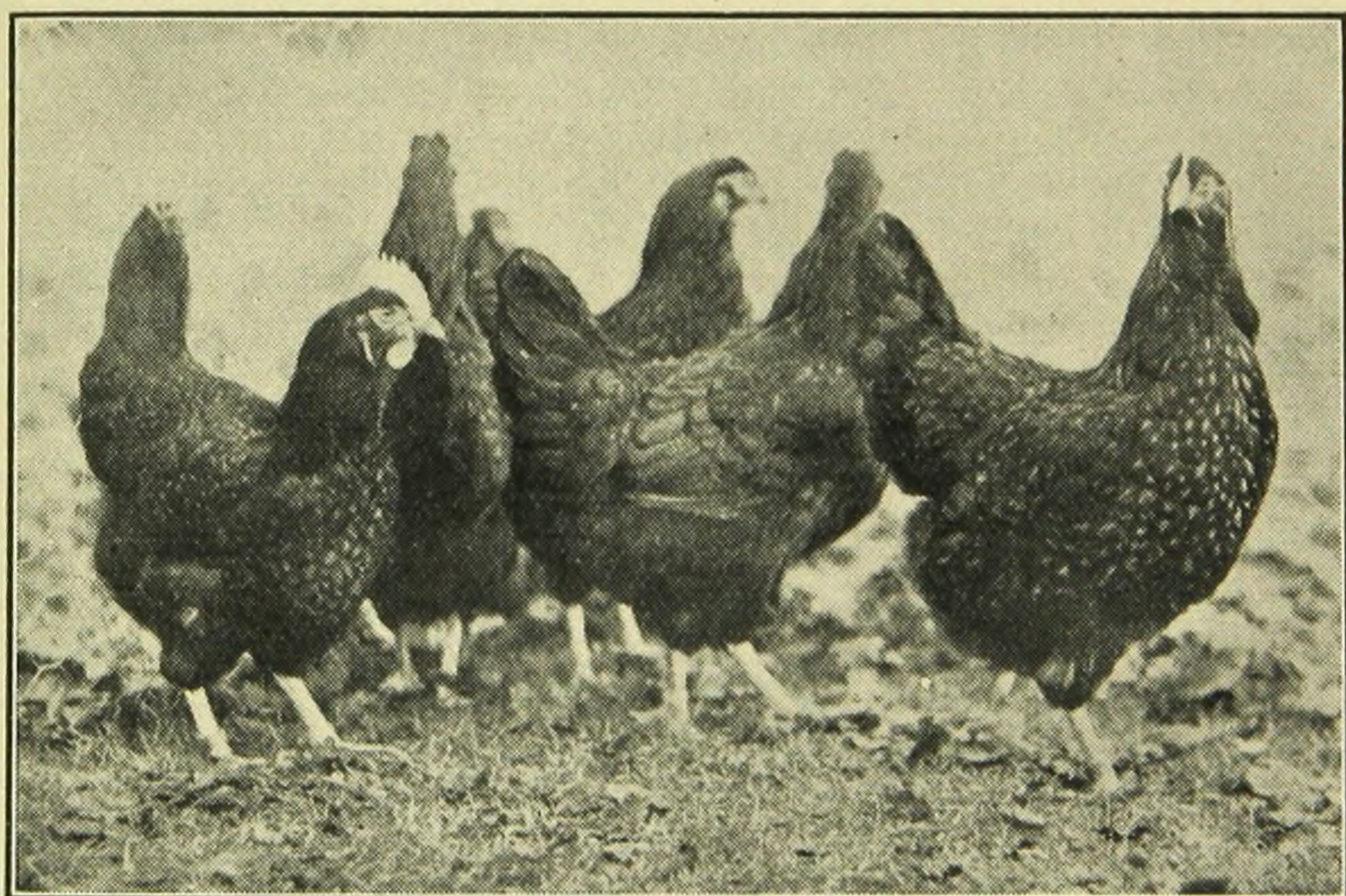


Photo)

LAYING TEST TYPE.

(Feathered World

This pen of Barnevelders selected by the author won Silver Medal at a well-known laying test.

if buying, know something of the male, because it would not help if he were bred from a laced-breasted line of males or a laced hen. It would be a happy proposition were it possible, for instance, to purchase a cockerel the son of a partridge hen and who herself breeds partridge daughters, the cockerel's sire also bred from a like partridge hen. But anyone keen on the variety can, in time, by selection and by watching the breeding results of each male and female, work up a line of partridge males. At least any purchased cockerel should be black-breasted and partridge bred. If we were looking through your young growing cockerels we should be marking and setting aside for later consideration or for comparison of dams and sires those showing up with red across the cape, back and wing-bows. When looking through young cockerels in the laced variety we expect the promising to appear on the dark side and showing up with red-brown centres and black outer lacing on

cape chiefly and then on wing-bow. For the young partridge males we should pass these over and look on the cape for almost wholly red feathers and the same on the wing-bow. In a matured bird we should again try and select a bird to start the line which at cape had red-brown feathers with a black end that extended also to the wing-bow. Accompanied, too, by any peppering on lower tail coverts, for this might be a helpful guide. Observation of the young cockerels in the growing stages will supply helpful data, because the known laced-bred cockerels can be memorised and the others compared with them. Sons of known partridge hens can also be examined and compared with those from laced hens. Having selected the likely male, mate him to the best partridge hens and continue that line with the best sons, marking them as partridge-bred and putting them to genuine partridge females.

Some may welcome the laced-breast in the double-laced male in order to be distinctive compared with the black breast of the partridge male. Later on we shall see.

CHAPTER X.

BREEDING BLACKS.

TO breed any variety that has black plumage, which is accompanied by black eyes and black legs, is a very simple matter because it follows closely to Nature's own rules. But retain the black plumage and alter the eye-colour to red or orange and the shank colour to yellow, and troubles commence *ad lib*. For that reason double-mating is generally resorted to in black breeds where the colour of shank is yellow. Otherwise in aiming at sound coloured specimens the tendency is for the eye and shank to become dark on Nature's lines. Supposing, for instance, you mated up year after year only males and females that were sound black on top and to the skin, in time most of the pullets would be dark, willow or greenish in leg colour, and black, brown or dark in eye colour. At the same time they would be black in under-colour. Yet the males might not show up so much with the dark leg and eye, because the males oddly enough retain the yellow shank more than the females. It is customary when colour breeding therefore to double-mate, making up one pen to breed show cockerels and another to give the show pullets. We will give fuller details to help beginners.

To breed show pullets that will be a good black in top and under-colour and yet retain the desirable bright yellow shank and red or

orange eye select the best of your show hens, with a good black in top colour and good beetle-green sheen, under-colour also as dark as possible, and the quills a good black, especially as they enter the skin. They will have excellent yellow shanks and good eye colour. Naturally they should be pullet-bred and for that reason all chicks must be marked for accuracy in future matings. The mate for such hens will be a rich lustrous beetle-green black in general plumage, sound black in wing feathers and equally sound black in main tail feathers, but he will be smothered with white in under-colour and will usually have white in sickles. By using such males showing the white under-colour one is able to breed pullets that retain the yellow shank, whereas with the solid black-to-skin male the progeny pullets would get dark legs and eyes in time.

White in wing is a defect to be closely watched. Some think that all birds showing plenty of white in wing and tail are pullet-breeders, but like begets like, and we should aim to keep soundness in tail and wings or the progeny pullets will show up with the defect. In like manner many see a little white in under-colour in an otherwise sound bird and at once declare such a cockerel to be pullet-bred. That does not follow, because some cockerel-bred males can show up defects in white under-colour and white sickles. One must not guess at such matters, but be sure how a male is bred when purchasing him or using the bird. To use a cock-bred male on to pullet-bred females would well mix matters and may mean a darkening of the shank colour in the resulting progeny pullets. An experienced breeder may be able to tell fairly accurately whether a bird is cockerel- or pullet-bred if it is a reasonably obvious example, but beginners cannot. One should mark the chicks differently in each of the two groups so that one lot does not get put to the wrong set and spoil the results. Individual markings are also advisable, because one hen may throw dark-legged pullets when properly mated and she can be discarded. In like manner some birds throw tip-top progeny, and that and other valuable facts are noted by observation where progeny are marked to the individual dam and sire. The greatest use can then be made of tested matings, successful ones being persevered with and failures discontinued.

To breed show cockerels one begins with a male that is solid black to skin. Top colour glossy with beetle-green sheen; under-colour very dark and not grey; quills of feathers too a dense black to skin, also wing and main tail feathers black; finally the sickles also black from tip to root, and preferably good in eye and leg colour. His mates should also be a beetle-green in top colour, under-colour black to skin, quills to feathers black to skin, wings and tail feathers black, etc. That combination will help to breed sons that are a sound black to skin and in wings and sickles and of a dense lustrous black and not grey. The progeny pullets, however, will be a dense sound black to skin, but the majority will probably fail badly in leg colour from willow, black and to duskiness. Eye colour may too tend

to be dark or even brown. Most of the cockerels bred, while being sound in black plumage, may still retain the yellow shanks, although a few may be darkish and even willow in leg and darkish in eye. Particularly may one expect this when dark-shanked and dark-eyed hens are included in the pen. We have known hens with even black shanks and black to brown eyes included in cockerel-breeding pens just to get perfection in dense glossy black colouring of plumage in the cockerels so bred.

Much wastage must exist with double-mating. Take the pullet-breeding pen and one may breed show pullets, but the sons may possess so much white in plumage and under-colour as not to be showable on the bench if the standard male has to be sound black. Then take the cockerel-breeding pen which produces show sons but pullets that are dark in leg colour and not showable to standard. Again view it from the novice buyer's point of view. A small man buys a sitting of eggs from a cockerel-breeding strain, yet is keen on pullets only. When matured these are unshowable, have dark legs, and in his lack of knowledge he thinks the mating was not pure. In like manner a beginner has some nice yellow-legged pullets and hens but introduces a cock-bred male and loses the leg colour in the progeny pullets.

In black Barnevelders we have seen many hens in the breeding pens certainly as black in top and under as could be had in any breed, yet with *solid black legs and brown eyes*. Obviously cock-bred and would, so mated, throw sound coloured cockerels. What would a novice think if he had chicks from a noted breeder of Barnevelders and many of the pullets came with black legs and eyes? He would give up the breed undoubtedly, and more so if the eggs were not brown would he consider that there had been cross-breeding, or the use of foreign blood in the strain.

Breeds that are black with yellow legs and in which double-mating is practised generally do not become as popular as they should on merit. They suit backyard environment to a nicety on colour and are a small man's ideal fowl in some cases, yet they *do not catch on*—excellent layers into the bargain, also hardy. Without a doubt it is due in part to this double-mating business. If one insists on completely sound males and females with yellow legs one seems compelled to adopt the system of two pens as outlined. In such breeds one finds at the club shows classes often put on for pullet-breeding cockerels in which cockerels can be shown that are not necessarily black to skin but show up white in under-colour and sickles. Now if at most shows classes were for (a) cockerel-breeding males and (b) pullet-breeding males this move would popularise the breeds more. If one ruled out the perfectly sound male as the standard and kept to pullet-breeding males, that would do even more good. Another alternative is to allow the pullet-breeding males, despite showing white parts, to compete in the same classes with the sound black-to-skin cockerel-breeders. But

to insist on the latter and to banish almost entirely from the shows the pullet-breeders will compel double-mating for success and the breed will in consequence have a small following only.

The Black Barnevelder standard at the moment does not entirely rule out the pullet-breeding males. By adopting the main Barnevelder standard it has accepted also the *standardised minor defects* of "white in under-colour, sickles and fluff." This is for the good of the breed. By all means keep to sound wing and tail feathers and curtail also the white sickle so that at most the white is at root or out of sight, or absent in the bird shown. In like manner curtail somewhat the white in under-colour so that it is not excessive. Instead of in pullet-breeding using a cockerel that is smothered with white he can be so limited and tested as a good breeder of yellow-legged pullets that some of his selected sons are showable. The selection of the males used for breeding will play its part in this direction. If one employs for pullet-breeding a male that is thoroughly white in under-colour and under neck, with completely white sickles, it is obvious that his sons will take after him. On the other hand, if we take a male that is sound black in sickles and limited in white under-colour he may be expected to breed some sons that can be exhibited. These males will be valuable in that direction once they are proved breeders of yellow-legged daughters of good colour in plumage.

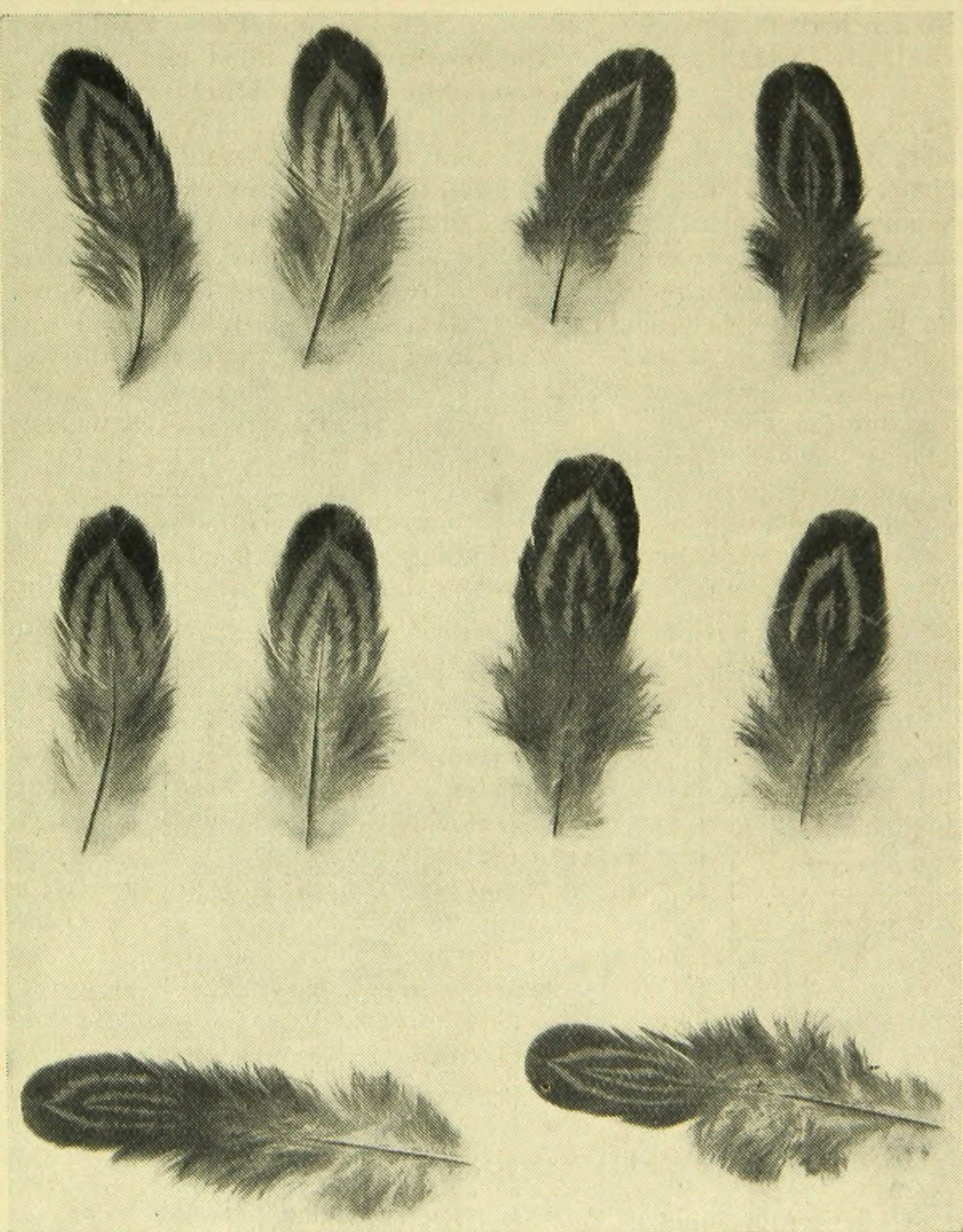
Naturally many will prefer to breed something that is perfection or next to it in plumage colour and they will mate up separate pens to breed cockerels and pullets. They may not mind what cockerel-breeding females they may place in the pens to obtain sound-to-skin black males. It will not matter to them if these hens have black eyes, brown eyes, black legs or willow shanks, nor what comes out of purchased hatching eggs by way of unshowable dark-legged pullets. Novices getting these will give the breed up, especially backyarders who desire pullets for show and not cockerels. If that is to happen let breeders list their pens exactly as mated, whether for cockerels or pullets, and with an explanatory note on the matter and what the progeny will be like. Then buyers of sittings or chicks will understand the subject better and know why some males are sound in colour and others smothered with white—why some females have splendid yellow shanks and others dark to black.

Toe-punching should be carried out most carefully so that all chicks are marked as to breeding to prevent crossing the two strains or lines. And when offering stock birds they can be sold as bred definitely one way or the other. In like manner it is wise to mark chicks to the individual male and female to aid tested matings. Males that breed sound yellow-shanked daughters can be noted, as can the hens mated to them. Males that throw excessively dark shanks in their pullets when declared or thought to be pullet-bred can be discarded, as can males deemed to be cockerel-bred when they throw sons with excessive white in under-colour, tail, sickles,

etc. Pullet-bred females that give dark-shanked daughters can be discarded equally. By watching matings individually one can the next year use tested stock with some degree of certainty in results. To mix the two types of hens with the one stamp of male can hardly be expected to give satisfactory results, as one does not know definitely which is which in the progeny, and the latter will be mixed and equally cause annoyance to buyers of hatching eggs or chicks.

My reason for suggesting that some leniency should be shown in the show-pen towards males a little white in under-colour but sound in top and sickles is to popularise the breed. To go exclusively for black-to-skin males and to discard all others must compel double-mating and its wastage. And after all the breed was brought out as a utility one laying large brown eggs, which should be retained with plumage colour as near to an ideal that is obtained by fairly simple matings. The white points in the coloured Barnevelders were at first so general that "white in under-colour, flights, tails, wings, sickles or fluff" were standardised as minor defects. It took years to get sound sickles, and we remember an early club show winning coloured cockerel with much white in sickles. No doubt it was intended to get improvement in all such parts in time, but so deeply rooted are the white points that to-day one meets with white in wing in excellent coloured specimens and with white in under-colour in tip-top males. A limited amount, it is true, in the best-class birds, but the weakness is there in the breed. The blacks have been through the same problems and while white in wing, and even tail (in males), also sickles, was excessive at first, sound wings and tails and even sickles are now very noticeable in the best specimens. However, taking black males of to-day (1932), very few are sound to skin, the majority showing some white in under-colour, even when sound in wing, tail and sickles. A few birds only have been sound throughout during the past season or two, but in more than one we have not noticed the true Barnevelder type about same.

That splendid progress has been made as regards colour of plumage is best understood by those who knew the original sports. As stated, these latter were chiefly pullets, some of which showed up with colour in parts, while most of those that were black were of a greyish or dull shade. Those showing up colour may have had stippled wings, or peppered capes, while fine coloured shaftings appeared in parts on many, either on breast or back. The males gave much trouble, too, because one so seldom got an all-black specimen. One would breed a really nice lustrous cockerel but for his brown wing-end. Other colour defects were excessive red in hackles, or wing-bows, coloured capes, shafty breasts, etc. To conserve the brown egg so typical of the breed these were selected and mated up, so that it was some time ere really black males arrived. Most of these, as stated, were dull in colour and on the grey side. Gradually there was concentration on the lustrous top



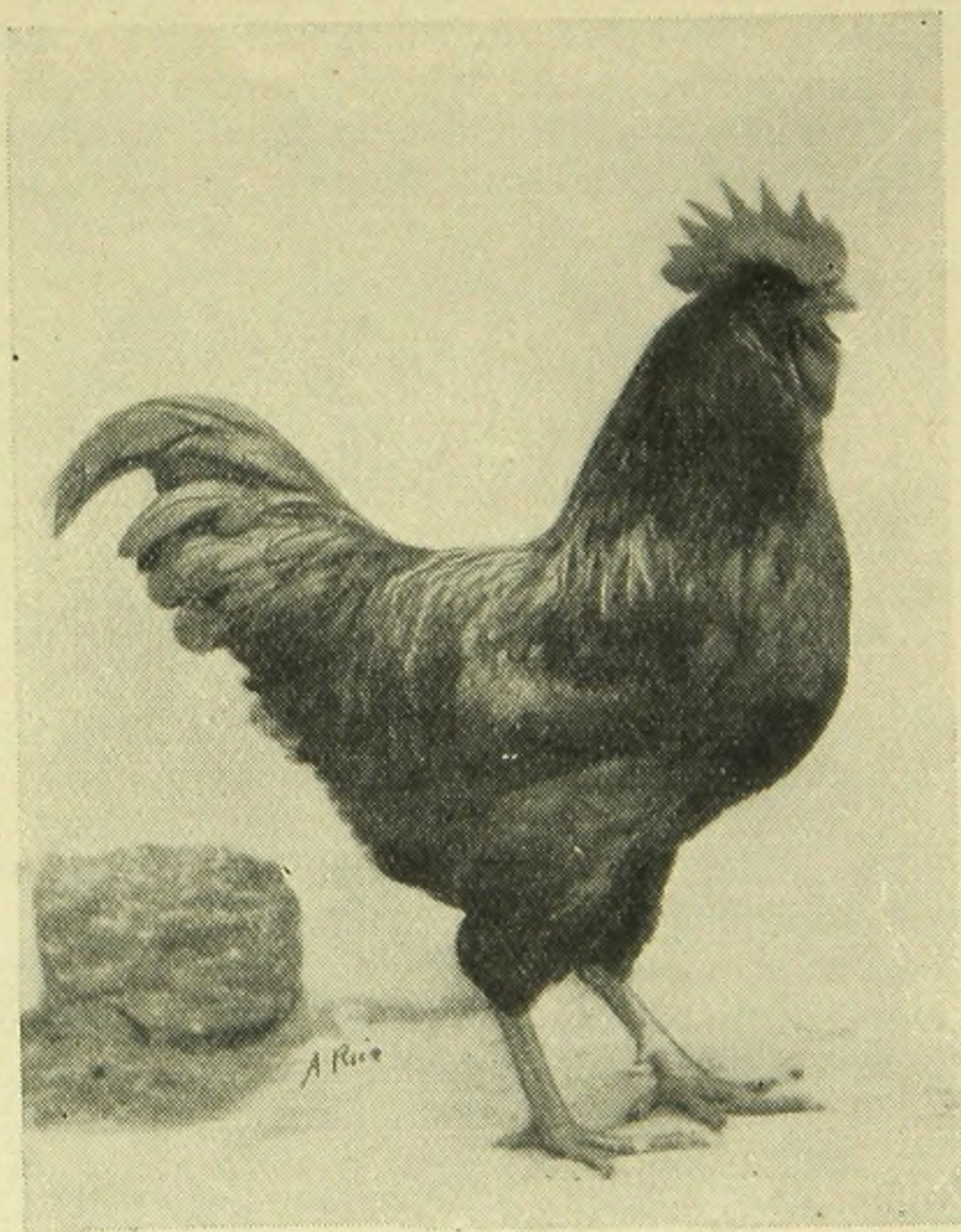
FROM AN ENGLISH WINNER.

Feathers taken from one of Mr. Ashley Slocock's double-laced hens, winner under the author of 1st (utility) Tottenham, 1924. *Top left and centre left pair:* breast feathers showing outer lacing, clean ground and inner lacing (in fact feathers are treble-laced). *Top right and centre right pair:* wing feathers desirable, well-defined outer lacing, clean ground and defined inner lacing. *Bottom:* back feathers. The improvement in lacing may be gleaned from a comparison of the Dutch winner's feathers reproduced on another page.

colour and this was in time obtained. The excessive white in sickles, wing and tail was gradually bred out by selection.

It is common in all black breeds to have such a colour defect as dull grey top-colour, and the ideal aim is the beetle-green lustrous black. Birds of this stamp and lustre look more attractive than the dull ones, and should be selected for the breeding pens. There is a tendency in the grey birds towards greyish, light and even white under-colour. Females may show much grey or white in under-colour. We can help matters when mating up the pens by studying not only lustrous black top-colour but definite under-colour with black or dark quills to feathers, especially next to skin. Under-colour is not everything, admittedly, and if it would help breeding one can standardise grey under-colour as against dense black. Black quills mean dark pigment and light to white quills must stand for the reverse. From a judging point it is as easy to place the cards for dense black under-coloured birds as for merely dark under so long as the majority decide what is to be preferred, or if both are to be expected. Personally I think we should not go to the extreme but should use reasonable moderation, for under-colour is not the one and only thing to make a utility breed. By all means take due regard of dense under-colour with all else considered, but why totally discard birds without the densest black under? We have plenty of females with black quills and dense black under-colour in the show-pen and invariably showing excessive feathering typical of exhibition black Wyandottes. In the breeding pen we have seen like birds but with black legs and dark eyes. And we have not seen the brown eggs in the nest-boxes from such birds. A rich top-colour and dark grey under-colour might help in breeding in the use of males for general breeding showing some white in under, but not in excess.

It is in the interests of the breed not to ignore under-colour and to aim at a conveniently dark shade of grey. The failings in the females with light under-colour are dull grey top-colour, light abdominal fluff, white tips to neck and tail feathers, white tips to general plumage. Such failings are very noticeable after the moult, for which reason one should note both top and under in adults selected for breeding. It is so easy in all black breeds to get white defects into the strain, even to white tipping to thighs and abdominal fluff. One should discard for breeding hens very light to white in under. Excessive white in under-parts of neck in the males is accompanied invariably by much white in sickles, as sound necks lean towards sound sickles—a point to note in culling maturing stock.



A WINNING BARNEVELDER COCKEREL for Mr. J. E. Cowcill.

Leniency towards leg colour in females may be considered wise by many if it helps breeding. A lustrous black pullet with bright yellow legs is a picture where fancy points count alone. A black, willow, or very dark shank is certainly an eyesore and undesirable. Yet in a breed kept for utility and bred for brown eggs in the main a little duskiness might not be regarded as a total disqualification. If the males are not to be excessively white in under and sickles but are to lean towards sound sickles and darkish under-colour one may as easily judge a female that is excellent in all other respects and shows plenty of yellow pigment in shank but also with some duskiness. After all moderation in all things, judging and breeding included, cannot in these days be disregarded.

It should be possible for utilitarians seeking fresh blood and interested in the black variety for large brown eggs to mate black males to selected hens bred from coloured pens that are almost black. And to note any almost black male for mating with black-bred females. In that way gradually to breed them up to perfection.

The present variety was bred in that way, and after all we are interested in truly bred brown-egg Barnevelders and not in obtaining perfect colour in the shortest time by crosses with non-brown-egg breeds. To improve colour and type by selective breeding should naturally be the aim of all to make the black variety distinctive, but there should be selection for the brown egg at all times.

CHAPTER XI.

THE BROWN-EGG FACTOR.

THE fact must not be overlooked that the Barnevelder boom in this country centred exclusively around *the large brown egg* that was its chief Dutch characteristic. One cannot say that the breed caught on because of its beauty or attractiveness of plumage and markings, type, or unique breed points. We have already given our personal view of such matters, in that the breed was so completely non-standardised upon importation into this country that few birds were exactly alike. Again, the specimens were full of technical defects as poultrymen here understand them in purebreds. Yet the boom came, membership of the breed club soared, and everybody was discussing the breed.

It was the large coffee-coloured egg that was the sole attraction. We were all familiar with the *Dutch all-brown eggs* on the London market, competing against our own English new-lays, and always receiving so much per dozen more on size and colour. Familiar, too, with the way that the Dutchmen were concentrating on the large brown eggs especially for the English market. In this country popularity is undoubtedly with the brown egg, even though there may not be any edible difference between white- and brown-shelled products. The public prefer the latter and white flesh, and that being so it pays to cater for the public fancy against trying to mould it in a different way. Dealers and buyers in our local markets compete for the brown eggs and pay more per dozen for them, and all buyers of eggs are prepared to pay a bonus for large browns. Shopkeepers like them, too, so that they can distribute a selection among the whites to attract the housewife. One may advocate and write about marketing graded eggs and keeping each box to one colour, but the shopkeeper soon begins ungrading them by putting browns among the whites. Maybe he considers a show of white eggs exclusively in his window rather anæmic to the eye, unappetising and unattractive. And after all he knows his business best.

It has been said by the shopkeepers that to show both kinds separately is a great mistake, because the housewife then insists on having browns only. Hence perhaps the mixing of the colours. In this country for commercial purposes Leghorns and like *layers of white eggs* are most extensively kept and bred. Heavy breeds, too, that all used to lay brown eggs now mostly lay pale-shelled eggs by light-breed crossing, lack of selection and super-production, also by concentration on non-broodiness. With so few breeds and strains laying brown eggs one can understand the great call upon the Dutch all-browns, but now that they must be sold as "imported" there must be the opening for English-produced browns to go with home-produced whites. With anything extensively produced there must be a glut and lower prices, as with anything that is less common prices must be higher. With browns in the minority, then, the great demand exists for them in this country and at top prices.

Their visit to *The World's Poultry Congress* at the Hague undoubtedly introduced our English breeders to the Dutch breeds and birds responsible for laying the all-browns. Introduced them also to the Dutch markets where they would see such wonderful collections of coffee-coloured eggs. That decided the importation of stock from Holland of the Barnevelder. At any time and in any shop we can see these Dutch all-browns. At the World's Poultry Congress our Dutch friends put up a national display of their characteristic brown eggs, together with great collections of the breeds responsible for them. Those who visited the Crystal Palace in 1930 will remember the huge glass cases wherein were packed these Dutch coffee-coloured products in bulk around the large stand. One measured the eggs in the case as about 4ft. high by 3ft. wide. A real feast for the eye of the poultry public. When originally imported all who took the breed up found it very easy in any local market to get an extra threepence a dozen and more for the Barney eggs, even from dealers. They found, too, that every egg produced of the brown type had its ready market and demand at over the top price. Naturally such was to their liking, and the breed boomed.

We have very good recollection of the eggs from the early importations, plenty being three ounces from hens, while pullets, no matter how late hatched, started off with the two-ounce product. One seldom found a small-egg pullet in the breed. Such thick shells, too, that breeders complained of the great *difficulty of hatching the eggs* in incubators. Good recollection, too, of some of the layers of these extra large products—thick-headed, lazy, old dames that could never have been commercially profitable in numbers as we understand things in this country. One could well understand such birds laying the large all-browns! Slow growers, poor feathers, late starters too in production, and just raw material in every way. There was much roup and colds in the breed, which surprised us, as we

thought that coming from a land of dykes and much water the breed should suit our dismal winters. But only strict selection and culling, with naturalisation, gradually bred such troubles out of English strains. It is well to have this earlier history dealt with, as it really was, for the benefit of those taking up the breed to-day.

Breeding for brown eggs exclusively is not impossible of achievement, because what one sows continually in the incubators must be reaped in the nest-boxes from the resultant progeny. In any breed, if one cares to rule out all other things, such as number of eggs, early maturity, colour of plumage, defects of stock, etc., in order to concentrate solely on large brown eggs, one can most assuredly evolve a strain in time to stand out for such products. It means starting only with hens that lay large browns without regard to numbers per annum, to mate them to males bred out of large browns, and from start to finish to incubate only the perfect specimens of eggs for size and coffee colour. Size, colour and texture of egg are all factors that can be established by selection and back breeding. A large hen lays 3oz. deep-brown eggs, but only 108 eggs in her pullet year, which number we ignore as we are after the brown-egg factor exclusively. Other hens with white eyes, side sprigs, feathered legs and like defects lay brown eggs and we ignore all the defects in the birds because our one aim is the type of egg. Our path is very easy and that is undoubtedly why the original Dutch importations were such nondescripts in that they just had the brown-egg factor for which they had been selected for generations.

We have had many interesting poultry chats with some English exhibitors who specialise in *showing in egg-classes* at our shows. Their work of mating, selection, and breeding is an exact art. Sometimes they work with purebreds, at others with crossbreds. They go all out to produce a perfect exhibition egg by mating up hens that lay such products to males from dams noted for the same factor. Only model eggs are incubated year after year until the daughter follows the dam in the one respect of size, shape and texture of products. They do not exhibit the live birds at the shows, but keep the strain to themselves, yet £10 and more would not buy certain of their foundation hens. The same can be done with brown eggs by exclusive selection of them for incubation. We often see eggs laid by individual R.I. Reds as brown as any Barney's product, and such would form the base from which to work up a brown-egg strain.

The brown shell is a variable factor and must be fully considered as such. It is a pigment that you can easily wash off by using a damp handkerchief, especially with mat-surfaced eggs, but not so well with the glossy type. We remember many years ago an exhibitor in the egg classes at Enfield Show being disqualified by the judge for dyeing her eggs—R.I. Red products. The eggs were sent up

to The Poultry Club by the local society and the P.C. experts declared them to have been dyed. The husband of the said exhibitor, worried naturally, referred the matter to the late Mr. H. A. Hussey, honorary secretary of the Tottenham Society, who suggested that I should be consulted. Fortunate for the parties concerned that this was done, as I must have been one of the first observant enough to find out that one could rub colour off certain types of brown eggs. On my way down to see the said eggs, lodged in the safe of a local bank, I stopped to purchase some eggs at a Sainsbury's shop. The alarm I caused when I asked if I might purchase several brown eggs from the case and select them myself, in order to pick the type I wanted! The manager was sent for by the assistant, who obviously thought I was a 'tec or inspector, but I secured the necessary eggs without having to pay the extra I had offered for the privilege of personal selection. At the home of the said exhibitor, in the kitchen, I removed the brown pigment from these purchased shop eggs with a slightly damped handkerchief to the surprise of those looking on. I located the Rhode hen that was the culprit, saw her eggs in the incubator, removed colour from the shells and verified the eggs in the custody of the bank. Giving him a personal letter to the P.C. that I would be prepared to supply 5, 10 or 50 eggs straight from the nest-boxes from which I would guarantee that colour could be removed with just a moistened handkerchief, he handed this declaration in for a Council meeting that was to decide the sentence.

Being present at that meeting as a member of the Council and hearing the experts ridicule my offer, I asked for a month's adjournment for members to test it out personally, appealing especially to those members known to breed Barnevelders. At the next month's meeting one of the two P.C. experts, oddly enough a well-known breeder of Barneys, sent in a box of eggs from each of which he had *removed colour*, and withdrew his opinion as regards the dyeing. The other still persisted in his opinion and has not since withdrawn it. Very many members however brought red-stained handkerchiefs with them and the necessary confirmation. Result: case dismissed! I mention this case in detail as it has happened since in the North. Where eggs are so disqualified by the judge, the exhibitor should see that the package is carefully sealed in his presence and in that condition submitted to The Poultry Club direct by the local show officials or to the county branch of that body. It has become a common occurrence for members of the public to scrape coffee-coloured eggs when on show, even before judging, no doubt convinced of their unnatural colour. This is hardly fair on the owner, because such eggs are easily scratched or marked; in fact, when laid in the nest-box a piece of straw touching the moist shell can mark it with a line. In view of this The Poultry Club has made a rule that each society under its rules shall elect an egg steward who shall plate the eggs and look after them until the judge is ready.

I always give instructions that no eggs are to be plated until the hall is cleared, and when notified the exhibits are ready I judge them at once. This prevents such interference and changing over of eggs or card numbers.

At certain times of the year the brown pigment is deepest, for instance *at commencement of laying*. As a pullet begins to lay, or a hen after her moult, the eggs are usually richest in brown pigment. If a pullet or hen goes broody or stops laying the eggs again get back to their deep colour upon commencing production again. Hence in the autumn and winter the best colour is noted generally. A poor producer, too, in not laying heavily in numbers per annum or in long sequences is able to retain colour of shell. One will see therefore that numbers and depth of colour go together. When a pullet lays a great number of eggs in the year and very long sequences without a break it is a much different matter. The eggs start a deep brown but gradually fade in colour, only the exceptions among high producers retaining their shell colour in a marked degree throughout the season. We must all accept that fact because so many think that once a bird lays a rich brown egg she always must do the same from start to finish of season. The first eggs of each batch may be deeper than the last few. At first many in this country were tempted to think that the red soil of Holland was responsible for the brown pigment, and we knew of several cases in the early days of the breed where red Dutch soil had been imported into this country. It was not successful in influencing shell-colour.

We have seen it stated in reports of *our laying tests* that the breed has lost much of its brown pigment of shell, no doubt guided by the type of eggs laid by some of the birds competing. We have, too, seen poor samples of eggs for colour at tests in the collecting boxes in the houses accommodating pens of the breed. Yet we have seen most typical deep-brown eggs from birds in these same pens. We have always tried to encourage the brown-egg factor and its retention, knowing its full value to the breed for utilitarians. Our suggestion was adopted at the Club show of wiring down all pens and awarding a valuable cash special to the Barney laying the best sample egg. This was won by a copper-rung hen in the laying trials' class. Equally an award is made at the tests for the layer of the best and most typical egg on shell-colour. The breed Club has at all times striven to retain egg-colour by allotting cups for exhibits of eggs at the shows and by putting on special classes for Barney products. We appeal to members to back the Club aims, one of which has always been to foster the brown egg. Much can be done by sending to tests pullets in lay and which turn out the right and typical brown egg, and by entering eggs at as many shows as possible in the brown-egg classes. The former policy will see that the test reports credit the breed with brown products and the latter will encourage the breeding of all-browns by special selection.

The Barnevelder of to-day, as seen at the shows here, is very far removed from the original imported bird. Then it looked just a common farmyard hen, whereas to-day there is some class about it. Then it would lay a brown egg, but the bird might have completely feathered shanks or even five toes. A brown egg of yesterday, too, from a bird that, as a hen, might produce only 80 eggs in 12 months. In this country our ideals are very different to those of poultrymen abroad. Outstanding defects on the bird are not so tolerated here and a breed must have class and distinction. Those interested in standard breeding have seen to it that the Barnevelder is no longer unattractive to the eye. Maybe if it did lay brown eggs the bird was not bred from with feathers down the shanks. Those interested in new-lays have seen to it that the Barney has been speeded up in egg-production, number of eggs, maturity, etc. Maybe if it did lay brown eggs the bird was not bred from when it only laid 100 eggs in her pullet year. Here in this country utilitarians are not contented with farmstock records and must apply pedigree breeding and selection for numbers. Crossing too with other breeds may have been resorted to by some to gain improvement in the standard bird, and it has not helped matters in being so difficult to breed and in presenting us all with such intricate colour problems. Again, in coming to us so mixed and unstandardised.

Improvements obtained in standard-bred stock have been extraordinary and we must give credit where it is due. No breed has made better progress in so short a time of importation. Throughout a good utility type of bird has been kept to without exaggerations. Where colour and markings have been concentrated upon one and all have given full credit as well to the utility points in the standard. The standard Barnevelder has to-day a good eye, neat head and skull, fine texture, symmetry, activity and balance, and carries good white flesh and liberal breast meat. We must continue with the breed in that direction. It is given to very little broodiness, this asset being noticeable from the start. What shall be the next step? Our showmen have got the breed to the attractive stage while conserving utility points; our laying test specialists have got the breed up to a high position for number of eggs. What of the future? Many may suggest that the breed can stand on its own now for colour and markings, but we personally doubt it. There are other breeds as handsome and they are not extensively bred these days—what, for instance, of the gold or silver-laced Wyandotte? Others may suggest that the breed can stand on its laying merits for numbers. We again doubt it in competition with, say, at the moment, the commercial Rhode I. Red. What we do not doubt for a moment, however, is the continued great popularity of the breed so long as we retain the large brown egg! We have seen so many small poultry-keepers take up the breed and become so

eulogistic over the brown eggs that to them there never was such a breed. We must keep that up.

The past years of breeding we may regard as spent in *building up the Barnevelder*; the future, I suggest, can well be devoted to consolidating and working up the brown egg. Otherwise there will come along other breeds less difficult to breed for plumage-colour and markings, but which turn out the highly coveted all-browns. The Dutch have more than one breed of this type, and so long as they strive to cater for the English markets they will be specialising in such breeds and layers. This breed has put Barneveld on the world's map. Stock can still be purchased from Holland laying the deep-brown egg, and our English strains should be equally bred to appeal to the buying public with the pioneers and originators handy at our doors. Home-bred specimens are an improvement in standardisation, the best with the best. But should utilitarians decide to ignore colour of plumage in English strains because of the absence of the brown-egg factor and to buy just brown-egg layers from Holland with or without feathered shanks, side-sprigs, white eyes, five toes, etc., then trade may go to Dutch breeders. Naturally it must be advisable to buy at home, because all imported poultry, whether from Holland or elsewhere, must be allowed to settle down and get acclimatised. Freshly imported stock can be expected to be somewhat slow at taking to our trying conditions, may be slow at maturing and coming into lay, and poor at feathering. After a few seasons by selection they get acclimatised with improved results. Imported hens mated to home-bred fully acclimatised males may be more helpful in results, or imported males mated to home-raised females. Many, too, who have gone to Holland to buy stock have on their return discussed diseases, having been unable to visit certain farms because of an outbreak of disease present there—mentioned solely as a warning to would-be buyers to treat only with the most reliable breeders in Holland. Visiting Holland personally to buy is the soundest policy naturally. If such a visit is impossible one is always able to buy hatching eggs from imported Dutch stock so imported by our own breeders who have personally visited Holland and made their selections and purchases.

As stated, one is best able to obtain the brown-egg factor by incubating only those eggs that are a deep brown. It is on a par with breeding for numbers of eggs. One may by careful selection of breeding birds soon work up stock for numbers, yet it would take longer to improve body-size in a strain or get back size of egg. It has thus taken some time to work up the raw material in the Barnevelder, and now, having achieved it, we should consolidate and go for the brown egg. Selection will, as stated, help us to obtain this. Where breeding for colour of plumage and markings is concerned give preference on all occasions in the pens to hens laying brown eggs and males bred out of such dams. One might even suggest discarding those hens and pullets that lay poor light-shelled eggs, otherwise in

breeding from them one will sooner or later use cockerels bred out of them and thus let down egg-colour badly. One may even sell such cockerels, and these will bring the buyer's stock for colour of egg into disrepute, causing disappointment with the breed. The poultry public have been well informed to date as regards the large brown eggs laid by the Barnevelder, and if they buy winning hens that lay poor eggs for shell-colour or winning males that let down their stocks for colour of egg their confidences will be lost. Prices in the past have been excellent for well-laced stock hens, also for outstanding cockerels; demand too has been splendid. The future is in the hands of breeders themselves. If the buyers look forward to brown eggs and expect purchased hens to lay the same and stock cockerels to breed progeny that lay all-browns, then such a demand must be met with the right class of bird, or be lost to other breeds. If the buyers want well-marked specimens in both sexes without regard to colour of egg, then breeders by their correspondence from inquirers will get to know what popular demand is for. For my own part I can only suggest that the brown egg will be linked with the breed, and buyers will support those breeders known to have this factor in their strains.

It would be as well for breeders wishing to help the breed and to share in the stock sales adhering to it to support the brown egg wherever possible. The *Club classes for eggs* of the breed should be more widely supported by those who exhibit live specimens; too often the classes receive poor entries and may even be cancelled. There should be at all the classics large combined displays of brown Barnevelder eggs from breeder-members on the lines of the Dutch collections. No opportunity should be lost of showing the all-brown products to the buying public. It is the egg that will keep the breed always to the front and highly popular with utilitarians. The egg, too, in attracting the attention of breeders will bring into the breed's ranks new names and fresh money.

Barnevelders can, like other breeds, be divided up into *three groups*: (1) best for type, colour and markings as individuals; (2) typical and representative birds, and (3) defectives. Given cockerels bred from brown-egg dams of No. 1 group mated to brown-egg hens of No. 2, and we can improve the progeny for markings and help to retain the egg. Cockerels of this progeny with the brown-egg factor can go up to selected brown-egg hens of No. 1. group and again give a general improvement in colour and markings of the flock. No. 3 group will include hens with defects and all of which lay brown products; we can mate cockerels from the other groups to them having the brown-egg factor and at least try to improve their general type. No Barnevelder that lays a typical brown egg should be wasted, yet matings can be designed always to improve or maintain standard markings with the retention of the typical and desirable Barnevelder egg.

It must not, however, be imagined that every Barnevelder must

lay brown eggs! That would not happen in any breed. It is *the days' collection* that counts. If one collects but a few real typical eggs daily that is not enough, and cockerels should be taken from such hens and mated to other like hens to produce cockerels to lift up the flock for colour of egg. If one has a deep-brown egg strain the factor should be carefully retained by wise selections of breeding stock and by careful selection of eggs incubated. The pullets, too, will give us a helpful key when they are in good laying condition. Is the day's collection of eggs from the flock of pullets very representative for colour of shell? A few light-coloured eggs must be expected, but such layers should not be bred from and should always be under control. If mated or if their eggs are incubated and the chicks unmarked one will later be using sons out of poor samples of eggs in the breeding-pens on their looks, forgetting the eggs they were hatched from. It is well to use brown leg-rings perhaps for all birds that have the brown-egg factor. A brown band may be for a special all-brown product and a brown spiral for just a good brown, records of the numbers of such birds being kept. Pullets should be put under traps to be tested for colour of egg and then rung as advised, red rings (for danger) denoting poor samples. The cockerels bred from such eggs can be similarly rung with brown bands or spiral rings, and their metal numbers taken as such. When one has a dam that lays the all-brown egg all or most of whose daughters also lay brown eggs, then one of her sons might be taken as fairly reliable for the factor and can be tested out in use. When a brown-egg sire (i.e., out of a brown egg) mated to a brown-egg dam gives daughters well up for the factor we have a line on that sire and again on his sons out of this hen. The more so, too, if all or most of the daughters of other hens in the same pen lay brown eggs in the majority. Naturally in breeding for brown eggs one needs to observe matings and to watch results just as one would if testing out matings for numbers of eggs. In like manner, if we mate a cockerel to known brown-egg dams and the progeny show deterioration we should discard not only the sire, but the progeny, including the sons. In breeding reliable males one should rely very much on tested matings, no matter what age the proved breeding dams and sires are so long as they are vigorous and fit. If unknown cockerels are employed one may soon lose colour of egg; that is but natural. One sees therefore how without studying any points but colour of egg one must by incubating all-browns only year after year in time get the factor established. Cockerels are bound to be used from brown-egg dams, their sires too came out of like products, and back-breeding is for the all-brown all the way down in one course. It is a matter of continuous selection.

How to get brown eggs? On all sides one hears the same queries: "Where can I get a sitting of real brown eggs?" "Where can I get reliable cockerels out of big brown eggs?" Sometimes a breeder will say that he purchased a sitting of eggs, but they were not so deep as

his own for colour. If I particularly wanted an all-brown sitting of Barnevelder eggs I should write to several breeders and ask them to send me on a sample egg or two they were prepared to match for colour with a sitting. At the same time I would ask each for a quotation for such a selected sitting to include the trouble too of supplying the sample. Naturally I would be prepared to pay extra for this service, but I should get my all-browns. For many years we have suggested this to inquirers dissatisfied with purchased eggs, and one breeder of Barnevelders at least we notice now adopts the plan in general. Those breeders catering for the sale of stock cockerels out of deep-brown eggs can adopt other progressive means of securing trade therein. Supposing I was offered a cockerel by a reliable breeder guaranteed from a rich brown-egg dam, a sample of product being sent to me. This might at least impress me and mean a sale, with something extra added to the price. Those who are buying sittings, chicks or stock and ask for favours should at least be prepared to pay extra for same.

Stock-breeding of poultry is a business just like any other and a man's original methods of conducting it mean degrees of success or failure. On several pedigree utility farms we have seen an *egg museum*. Therein have been kept for display to visitors and would-be buyers a sample blown egg of every noted high-record hen bred on the farm. A breeder of Barnevelders on his stand at the shows could equally have a cabinet of all-brown blown eggs laid by his best recorded hens from which in that year stock cockerels are offered. One sees the dam's egg before ordering the son, and a reliable breeder would impress me in that way. Again, if out of season he were to blow the contents from a given number of eggs of the all-brown type from certain of the best hens reserved for cockerel-breeding he would be able to offer to send an inquirer one of the eggs even on condition that it was returned. These methods, if novel, must inspire confidence, and that is what one needs in the poultry business, and such a policy persuades a buyer to pay top prices. Propaganda means extra business and stands at the shows should not be overlooked by progressive breeders whereon to display their goods and produce and to gain publicity for their methods. Besides, they are able personally to meet inquirers and regular clients. Those interested in brown eggs should also exhibit their stock and send birds that lay typical eggs.

There is always an opening for those who specialise in what is popularly demanded. We have in mind the boom in double-laced hens when good specimens were scarce. Every breeder was in the market for such hens and prices were high. Buyers visited shows to see what they could buy. In like manner those who push their brown-egg strains of the breed will find inquiries coming in fast. They should, however, do the thing thoroughly.

When the breed was first imported the difficulties experienced in hatching the large thick-shelled brown eggs were freely discussed.

Dead-in-shell and delayed hatching were complained of. Many set their best eggs under broodies and applied plenty of moisture, and the latter was provided freely by users of incubators. Gradually one heard less and less of such difficulties as concerned English strains. One of the experiences then met with was the hatching out of the chicks a day or two late, yet with the chicks strong and rearable. We have met with the same problem with eggs purchased to-day from Holland direct. Maybe the rich brown eggs of the early imported stocks were in the main abnormally thick in shells and many of abnormal size up to 3oz. each. Laid too by low-producing hens. Some of the eggs still imported from Holland are similar to-day (1932). By increasing the yearly production English breeders have arrived at a more normal size of product without the super-thick shell. Hence the greater ease in incubation with less dead-in-shell and hatching more to time. One must meet such difficulties as they arise by attending well to the moisture question. It is well accepted that abnormally large eggs give more trouble in incubators than small ones, no matter what the breed. In all breeds, too, individual hens prove the exception in that hatchability of their eggs in machines is poor, yet excellent when entrusted to broodies. In cases of such individuals in Barnevelders their eggs might be handed over to broody hens. Many still purchase eggs from Holland, and any especially large rich brown thick-shelled eggs might be set under hens and not put into incubators if trouble is met with in the latter. We mention the matter because should hatching be delayed, i.e., the whole hatch, the owner will not worry unduly. Of course with hatching to time in the main one should not tolerate odd delayed eggs that give weakly chicks. Again it will help matters where large brown eggs are concerned to avoid using stale eggs; incubate them when but a day or so old, and send out fresh eggs as sittings, always under a week old. In the machine try turning the eggs often.

CHAPTER XII.

SHOWS AND SHOWING.

SHOWING is somewhat of an art! In the first place one must get to know the *dislikes and likes of each judge*. No two judges will be exactly the same, and cannot be. Perhaps for the best, because if all were of the same opinion certain birds would be unbeatable and close down exhibitions. Out of exhibiting comes experience until one begins to see what a judge wants; visits to the shows, too, enable one to get the views and opinions of a judge. I am a great believer in the educational value of our shows, and for that reason never hurriedly depart after judging. Such a policy may often mean abuse from some who **MUST** win at all costs. One can however tell the genuine fancier who is prepared to accept or hear one's explanations for placings without brawling and who is willing to get a judge's opinions.

It may so happen that you cannot personally visit shows, in which case you may write the judge, c./o. The Secretary, for his opinion, enclosing a stamped envelope for reply, which letter will be given to the judge after judging. Some may not oblige, and I can only speak for myself as being quite pleased after judging to get full notes on any exhibit and to report thereon to the owner.

Always show fit birds. These attract judges most because a good bird should be well cared for. Scaly legs or lice at abdomen always have a black mark under me. You may protect the shanks from scalliness by scrubbing with warm water and soap and dressing now and then with glycerine. Application of the latter too will aid leg colour. Some treat rough legs with sweet oil daily. Paraffin oil is very effective when the shanks are scaly, but dangerous in use if it gets to the thighs or is applied in excess. Dipping the legs in paraffin causes the latter to run up into the joints, causing lameness, loss of laying and some deaths. Scrubbing the affected legs first with warm water and soap, then applying a little paraffin oil with a tooth-brush to rough scales only may be carried out providing that plenty of sweet oil or glycerine is at once rubbed in to prevent any irritation. Sodium fluoride, just a pinch in abdominal fluff, will attend to the lice and the eggs at roots of feathers in small white to grey bunches can be plucked off. One needs several dustings to remove first the live lice and then those hatching from the eggs. Over-fat or over-

thin birds soon get infested with abdominal lice, as do stock cocks in reserve in cockerel boxes. Some birds, too, are real breeders of these pests. Handle all birds in reserve frequently, even for mating and utility work, and examine at abdomen, dusting them freely. Preparations are sold to apply to perches before the fowls go to roost that will kill lice on the birds.

Always show clean birds and at home get into the habit of examining your birds at abdomen. When trap-nesting your pullets now and then examine the abdominal parts for lice and dust them on putting them into their winter trap or laying houses. When you send pullets to a test dust them well, and better still carefully pluck off the soft feathers below the vent where lice nest, as this will be a precaution should they get fat. One may, too, clip or gently remove some of the soft feathers around the top of vent where lice eggs are deposited at roots. Examine a hen with lice and you will see where they nest and deposit their eggs. If neglected the lice eggs are deposited in lines right round the abdominal parts, causing lack of condition and great irritation.

Washing is not usually carried out with black or dark plumaged birds, although some will wash any bird shown. Be sure to wash the legs, also the face and comb. One can remove surface dirt from plumage with a slightly damp silk handkerchief and rub up sheen with the warm hands or a piece of velvet or pad. If one does not wash the headpoints there may be much dirt in the creases of the comb and wattles. Sponging the headgear with cold rain-water will do and will freshen up the bird for show. To rub in vaseline or the like tends to collect the dust. A little Larola may be applied to the red parts to advantage, reddening them up, and bringing out the grain or texture.

When *showing adult birds* learn how to scale the shanks. Birds in their second year should moult scales on legs as well as plumage. Some do and others incompletely, so that the shank looks white and rough with old dead scales. Scrub the legs of hens and cocks with warm water and soap and using the point of a blunt knife just spring off all dead white scales. They will easily come off and leave the young bright scales below. Do not force any that are hard to remove or cause bleeding, and learn to tell an old scale from a new one. Then dress several times with vaseline and glycerine, or the latter or sweet oil. Clean the underparts of scales too of all dirt, using a pointed instrument or sharpened piece of wood after scrubbing them with warm water and soap. Those black lines on shank and toes from dirt under the scales make a leg look dark in colour.

Cockerels can be shown earlier and more often than pullets. One can begin to show them just as they are completing their plumage, provided they are fully grown. One can thus get a show or two out of them ere they are fully up. Do not, however, show young cockerels in excess while still growing or they will not finish any size. Cockerels cannot be expected to grow normally if living in a show pen. It is

easier to win early chicken shows in the summer than later on in the autumn when all have a wider selection. The early summer winners may be regarded for that special objective and may not make the size of later ones. For the classics and Club shows save special birds and have them right up in feather and fettle. Competition then is strongest! Show your best birds but two or three times and then reserve for the breeding pens. Do not over-show any birds required for breeding, two to three outings being sufficient. And see that sufficient time is allowed between the last show and mating-up to get them fit for breeding and not in a soft moult. Keep the best specimens for the best events and the second-grade birds for the local shows.

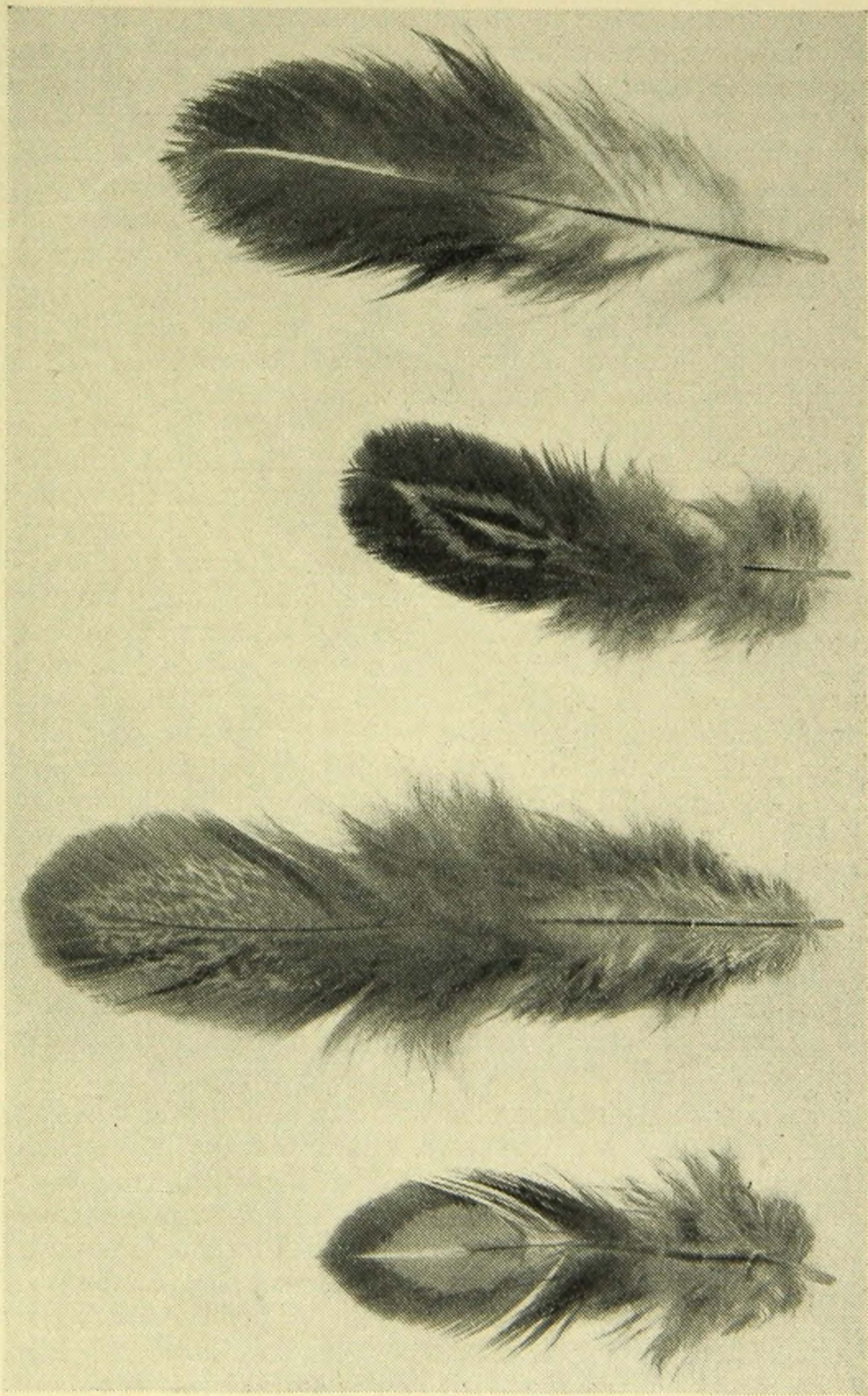
Pullets cannot perhaps be shown as often as cockerels because showing is apt to upset their laying and put them out of condition. The individual pullet or hen must decide, because some lay on for ever no matter how many changes they get or journeys they do. These exceptions should be noted carefully and made full use of. They seem docile and contented, remaining in lay when penned and returning from each show with an egg in the basket. A pullet is usually at her best when she has just commenced to lay, having laid from three to seven eggs. This is at least the ideal bird for classic and Club shows, being bright, alert and cherry-red in headgear. When she has laid thirty or forty eggs she may appear pale in headgear when benched. Watch the pullets carefully and never show a pullet when a little off condition or she may go right out of condition. A good showman will leave his pen empty rather than send such a bird, or will bring in a reserve. Left at home the bird will the sooner return to form ready for another later event. Ovarian condition makes for bright red headpoints and coinciding with laying condition.

A separate section should be made of showing work by the utilitarian. In the first place at a young age he should put his promising cockerels together in small groups. Large flocks are useless as they cannot be conditioned properly. Lots each of a dozen are better than any of twenty to forty, especially as they get older. One must run them together fairly early ere they fight, and when of the fighting age one must house each of the best cockerels separately. And if one is taken from the group at a ripe age he must go on his own and not be returned, or fighting and damage will follow. Cockerel-boxes, each with a small wired attached run, will be necessary and are invaluable on any farm for conditioning, breeding, and resting males. The divisions to runs are best boarded up at the bottom to stop fighting and damage to combs. One may early on put two or three young cockerels in each run, and an adult cock in charge, so long as they are not moved, yet one must watch for fighting to start and pen singly or so ere damage sets in. Males are such fighters that they damage each other badly, combs and wattles get torn or injured and some may get killed. All breeders are faced with the problems

of caring for the cocks and cockerels. In grass enclosures that are resting, a small cockerel box may be put and a cock or cockerel therein. A cock can be run with each group of young cockerels and will play the policeman, keeping them in order. Only the most vigorous cocks, however, can hold their own when the cockerels get older and begin to set about them, and one must remove a cock if that starts, or he will be killed.

Selected show pullets can be put up in twos and threes in cockerel-boxes and runs or can be placed in well-littered houses in groups of twenty or so. They are best sorted out when four months or so old and look promising and be then watched to see which turn out the best, ringing them accordingly for quick recognition. Have the traps on to get their eggs, so that each may be registered that is a brown-egg layer. A set of trap-fronts can be made to button over the nesting sections for use as desired. This is a good plan because even when pullets in the laying houses are not trapped one can fix up quickly several short sets of fronts and trap the birds out, marking those laying large and brown eggs. Trap-nesting makes for docility in birds, but it may wear tail feathers unless a rubber or wooden stop is fixed at the bottom of each front slide to take the latter as it falls, leaving space for the tail below the bottom of the slide. It is well to have a few show-pens fitted up in each such pullet house so that the birds can be placed therein and steadied for show work. Pen-training is important, especially with some birds. A hinged platform will take the pens, so that all can be taken to pieces and erected as desired. In the maturing stages any pullet may be placed in one of the ordinary show-pens and touched up with the judging stick, also any handling that can be given to them will make them docile.

A penning room is a necessity. Select a comfortable outhouse that is neither too cold in winter nor too stuffy in summer. Erect ordinary wire show-pens around the walls on tabling, two tiers high if pressed for room. Litter these down well with chaff or sawdust and have solid partitions to stop fighting. Let the backs go up to the walls and have covers for the tops for use when it is necessary to train any wild cockerels. With only the front of cage open a bird learns to face the open and not to turn towards the dark rear of pen—important at judging-time. Handle such birds when penned and have a good table or two in the centre of room to put each bird on for preparation. If water is laid on in the house all the better, with a good sink and standing-board to match; a cupboard on the wall containing accessories and medicines will also be useful. The show baskets can be stored in the room or loft overhead on slatted racks, each numbered so that one knows just where any has been sent to and if returned, a book of records being kept. On return from a show the birds should be put in these littered-down pens and be kept under observation. It is very advisable not to mix them at once with others in case of spreading any ailment. They



GOOD OR FAULTY ?

1. *Left*.—A breast feather often found on Partridge and double-laced hens, and once standardised, but not now, viz., broadly laced feather with red-brown centre. The aim, however, has been to get correctly stippled or double-laced breast feathers in females, and it has now been successfully accomplished.
- 2.—A Partridge feather but indistinct in colours. 3.—A double-laced hen feather too broad in outer lacing as result of too much black in back and wings of male (sire). 4.—A black feather with coloured shaft and not to be confused with wide red-brown centre.

can be kept fit for a long time in these pens, and if desired any may be put out in cockerel-boxes on grass for a brief change, then be returned.

A good disinfectant is made by filling a show-pen cup with water and lightly colouring it with permanganate of potash, adding ten or twelve spots of oil of turpentine. Using a swab of wadding sponge the comb, face and wattles, also cleft of mouth and back of throat, as a precaution on the return from and upon dispatch to a show. Avoid colds and watery nostrils, swabbing the latter out with the above, avoiding carefully the windpipe. A cold and draughty penning house will mean colds and a stuffy summer interior will mean lung trouble.

Learn how *to condition birds!* Bread-and-milk is a fine conditioner, pushing stale bread into a jug of warm milk to soak it all up. Scalded biscuit-meal dried off with middlings is excellent, and have scalded cooked maize and wheat flakes as variety. Cod-liver oil stirred into biscuit-meal, then scalded and dried off, can be fully recommended, also boiled linseed, slowly simmered until a jelly and added to the mash. Meat scraps will be appreciated by cockerels, many giving their birds a little raw meat daily. Be careful in handling not to damage wing or tail feathers or sickles; if any feather is broken accidentally it must be pulled out and another allowed to grow ere the bird is shown. If it is desired to show a male bird from the breeding pen in the summer the pen should be broken up early and the male withdrawn. Otherwise he will get weakened badly and damage the backs of the hens, breaking off the feathers. Put him on his own and feed him up well, after a good dusting at abdomen. If he has any broken feathers pull them out so that the new ones can be fully up ere he is shown. Hens, too, for summer showing can be put on their own after breaking up the pens, any broken feathers being also removed and those on back a few at a time so that new feathers have a chance to grow. Some cocks get very rough in the breeding pens and others retain their condition better, being well preserved; give these preference for summer showing and hens of like stamp.

Do not show hens that are going into the moult or one will find the pens full of feathers on show day. If when ready to dispatch feathers drop out here and there it is risking it. Do not show over-fat hens with two pounds of internal fat in abdomen just because they are well laced. Utility requirements should be closely studied if the breed is to retain its popularity. Breeding condition should be reckoned with hens and laying condition with pullets! Some breeders show very aged hens past their prime because they excel in lacing, but let us have sound breeding and laying condition. When very aged hens win our classes on lacing and have not laid an egg for ages—well, the breed will be doomed. That has killed many breeds before. Hens can hold their own until the good well-developed pullets come out, and then hens pass on to their own hen classes at

the club show. Only when in breeding condition should they be again shown. One should be fair to hens, and as they get weathered in late summer and good pullets begin to appear the former usually have to take second place. Then exhibit pullets for preference, and after the moult do not show the best breeding hens to be upset and maybe stopped in laying just as the breeding season opens. They should be more valuable in full lay at home giving eggs for the incubator.

In showing eggs by all means have clean litter in the nests and clean boxes and interiors for dispatch of products to shows. Handle the eggs with care and collect them regularly. Do not soil the shells with warm, moist hands or scratch them. First pick for size, then shape, colour, bloom, texture and matching. Select them by daylight and not in an artificial light when defects cannot be so easily seen. Place them on dark paper or material when spotting their defects. Keep all the eggs to one type; do not put speckled eggs with fully brown ones; do not put light shades with dark. Pack carefully to avoid breakages and test before the final choice for internal defects, blood spots, etc., also for thin, porous shells that may get broken in transit. Have your name and address on each box and be sure to label each lot carefully (or better still send in separate boxes fastened together) where two colours or sets are entered to prevent the steward plating incorrectly. Do not tie the box of eggs to the underpart of your hamper lid and grumble if a steward misses it; or place it under the litter in the basket as some do.

The Barnevelder has been built up on *utility-exhibition* lines for the dual-purpose objective. Sometimes the classes are in the utility section and at others in the exhibition. Often classes are provided in both, but it might be wise to vary them between the two and not necessarily have both at the one show.

In having classes sometimes in utility and at others in exhibition one is able to attract both sections of visitors. At all times should breeders and exhibitors co-operate so that no extreme or exaggerated points are allowed to gain a footing. The table merits of the breed are admitted and should be retained on the show-bench; body-size should not be ignored. Yet one should fight hard against any coarseness and any points that are against utility. Those points that indicate utility and laying abilities are now more widely known, thanks to utility showing, than previously, and are valued in the breed standard; one and all should co-operate to see that they are valued at the shows. The ideal should be a good layer and a good looker. Then it will appeal to the majority of poultry-keepers who these days insist upon laying capabilities for profit in any breed they take up.

CHAPTER XIII.

EGG PRODUCTION AND LAYING TESTS.

Table Qualities.

AS stated in the chapter on brown eggs it may be easier to establish large all-browns if such are to be the only objective, and not the number of eggs laid by each bird, or even by average production. Undoubtedly so many large brown eggs were in the earlier importations because very many were low producers, exceedingly heavy-bodied females of the stock type, lazy and thick in head. Trap-nesting is still in its early days in Holland. Some of these hens, which looked ancient in head points when still young, turned out *eggs around 30z. each*, and no wonder the breed led all others at the trials for weight of egg. It was rare for pullets to start with eggs under 20z., even if late hatched. Of course the fact that the breed at first matured somewhat slowly would also aid the size of egg; early maturity and rapid growth may often go hand in hand with small eggs. From reports of English tests as far back as 1923 we note:

"The largest eggs have been laid by the Barnevelders."

"For the six winter months the Barnevelder leads all breeds for size of egg with an average of 2.26 oz. as weight per egg."

"Of 2542 eggs only 40 are second-grade."

Averages then in English trials by selected birds were around 170 to 180 (48 weeks), although with one pen we selected then for a test the average was over 200 (48 weeks). In Dutch trials (52 weeks) the average was 177 eggs per bird. The selected test birds were of course neater in head, more compact and active than the stock-hen type referred to above. But we agree that the early material was raw and needed to be heavily culled and selected in order to improve average production. The heavy, lazy type of bird was a poor producer in its second year and was a long time in the moult. Again, high-record individual hens were not numerous enough at first to give sires for uplifting averages. Maybe kept as a medium laying breed for numbers one would have easily retained egg-size, colour of shell, etc., but in this country every breed is now put on its mettle as an egg-producer, and the Barnevelder has proved no exception. By selection and by the use of sires from high-record

dams laying has been greatly improved. Improvement has been too in the direction of average with the elimination of inactive poor producers of the thick-skulled type. As always happens in breeding for numbers of eggs some strains lose size of egg and also size of bird. It was many years before pens of Barnevelders laid an excessive number of second-grade eggs and before the pullets in certain pens became on the small side. But we have noted this in recent years, so must in fairness mention the fact.

Size of Egg however, also size of bird, may be considered as present in most strains still, and in aiming at numbers one should keep both points seriously in mind. The Barnevelder is a splendid table bird with full plump breast, and excellent white flesh. Its fullness in front is an asset in crossing to produce well-fleshed young chickens for table. Being a gold it sex-links with silver females like the light Sussex or columbian Wyandotte. Mating a laced or partridge Barnevelder male to light Sussex, white Wyandotte or columbian Wyandotte females, all the gold day-old chicks are pullets and all the silver day-olds are cockerels. In like manner the black Barnevelder male can be treated as a gold and sex-links when mated to silver hens of the breeds mentioned. To produce early plump table cockerels one may mate a Barnevelder male to solid handling plump-breasted white Wyandotte females; finished on milk mashes the chicks should be very satisfactory and the sex-linked pullets from the mating can be run on for laying. Or the Barnevelder \times light Sussex will produce nice young table chickens, and sex-link as stated. This cross we recommended in Argentina when first visiting that country and when they were just beginning to popularise small chickens, and Senor Benjamin Muniz Barreto adopted it for the hotel trade with every success. The Leghorn type of Barnevelder, with narrow, long and racy body, whipped tail and shallow depth of body, should not be cultivated as the ideal. It is a wide, deep and full-fronted breed with depth at rear and carrying table properties.

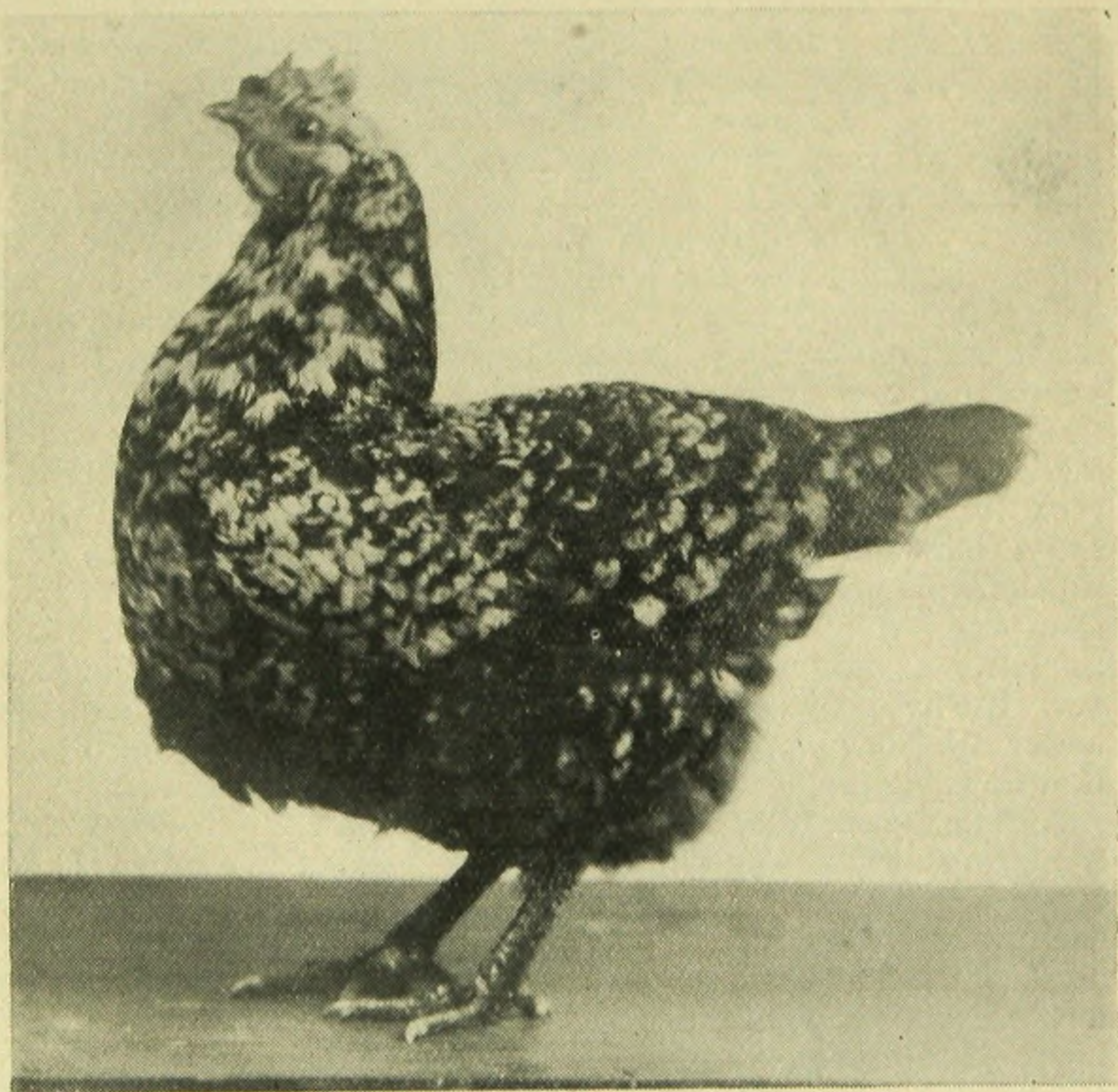
Brown eggs naturally put up a higher weight because they are brown, shells and their thickness counting of course. But in breeding for size of egg one should take a key from the pullets. For breeding purposes one should select hens that as pullets quickly got to the 2oz. standard. It is in our opinion the number of eggs under 2oz. permitted for a pullet that decides. A good ideal is to allow not more than twenty under 2oz. Naturally we should take the cockerels from those hens that are obviously large-egg layers. It is when a pullet takes 30, 40 and more eggs to get to the 2oz. and over that the small-egg factor may be suspected. And one can but take the warning that the small egg is very dominant and most persistent in breeding. It is easier to keep the large egg by selective breeding than to lose it and then try to get it back. Even where trap-nesting is not practised one should trap all the pullets when in lay for size and colour of egg, each bird having a numbered leg-

band. Coloured rings can be used to denote the eggs laid by each, so that at any time one may see at a glance those that lay ideal eggs and any that lay small products. If it comes to marketing one knows by the different coloured rings which to sell, and when mating up the hens each can be graded on size of egg by the ring worn. It is well to record all such details in case the leg-bands come off. Trap-nests need not be fitted throughout; two or three short sets of fronts made to button over the nesting-sections can be employed. One house or flock can be trapped for several days at a time. Where trap-nesting in detail is carried out and every egg weighed all such details will be available. In like manner one may send pullets to the laying tests to have them recorded with a view to making up a good pen of the best hens to produce cockerels for stock purposes, i.e., where trap-nesting is not generally adopted at home.

Some splendid records have been put up in laying tests by Barnevelders in recent years, showing what the breed is capable of for egg-production. It is now possible to get *sires from high-recorded hens* without which heavy egg-production is not possible. These highly-bred sires mated to hens laying 180 to 220 eggs should produce progeny well up for average. In selecting a cockerel for stock to breed layers one cannot set any hard and fast rules as regards number of eggs for the dam. That the dam should lay well over 200 eggs in her pullet year is accepted as advisable in all pedigree utility work. As to whether the exact number shall be 230, 250 or 265 in our opinion does not matter so much as the bird itself and the body-size, character, texture and headpoints of the cockerel concerned. Our ideal cockerel should stand wide and straight, with full front, broad back and deep body—substance generally. He should be neat in shanks, skull, and bone generally, with tight, silky and sleek feathering, bold eye, and smooth full face. Refined in skull, one sees the eyes prominent when viewed from back and front; our ideal is fine in pelvic bones, thin and silky in skin, as felt at pelvis or under the wing-junctions, and truly masculine and keen in eye. Expression is a great point, and we prefer old birds with young faces, a sign of refinement retained, not young birds with old or wrinkled faces, overhanging eyebrows, etc. The smooth open face is the ideal, with fine-textured comb and wattles. A cockerel of character has a lot to say for himself, will crow in the hand, is a fighter and will chase you out of the run. Birds that are superfine in bone, with thin dry unhealthy looking shanks, thin superfine beaks and whitish legs, should be avoided. We like to see some healthy fat in the legs and the sinews filled out at back of shank, scales small and tight. Undersized birds are not desirable.

In selecting both *hens and cocks* for utility work one will not go wrong in taking those that are well preserved with age, looking fresh and young about the facial features and retaining their texture. If trap-nesting is not adopted and one must rely on handling we

should advise the mating up of such birds, not those that lean to the beef or coarse type, look old when but young and have very old expressions with age.



AN INTERESTING OFF COLOUR.

This badly-posed photograph is of a Spangled Barnevelder produced by Mr. E. F. Piper. The markings are identical with the Partridge variety, even to the outer black edging, except that the end of each feather is edged or ended with a white spangle. The ground-colour is red-brown, with peppering all over, followed by outer wide black lacing and white spangle at end.

For *ordinary breeding* it is necessary to uplift the progeny as compared with the dams or to allow for deterioration. Nature deteriorates in size of body and egg, and in number of eggs, so we should hold something in reserve; that is why in matings one needs body size and size of egg a little over 20z. to keep to that ideal in the progeny. Equally a tip-top egg-bred cockerel will lift up egg-production when mated to medium hens, and those hens of 180 to 220 egg types may come in here for general breeding. To breed cockerels, however, the son of say a 240-egg dam should be mated to hens also well over 200 eggs. The daughters of such matings may

be a little on the small size for body for stock or general breeding; hence going back to the larger hens. These smaller daughters, however, as layers might go to laying tests, to turn out more eggs. They might also be again used as cockerel breeders upon laying well over 200 eggs in their pullet year.

Tested matings should be considered by all pedigree breeders of laying stock, more so where one trap-nests completely, enters the laying trials, and engages thoroughly in this branch. Work up a good female line, noting those hens that breed excellent laying daughters. The best hens are those which yield daughters of level average as against those that throw one or two supers and many low-grade daughters. By marking the daughters of each hen and noting their yearly records one may find that seven pullets out of seven from one hen lay over 200 eggs in their first season. Such a hen should be valuable for breeding stock cockerels or pullets for tests. If one needs a cockerel to breed layers one of her sons can be taken that is full brother to the seven sisters. We may mate her to a cock that as a cockerel has bred heavy layers, or to a cockerel whose sisters have outstanding records, all high and very level. One should avoid great variations. When we mate known hens that have been tested to untested cockerels we may soon see the influence of the latter. If the progeny of one varied we can grade him and them out. If the progeny of another cockerel with a tested hen, and better still out of a pen of such hens, is excellent we may consider that he passes the test excellently and is a proved breeder.

Mating up stock to breed layers is an art and one can only master it by great experience and observation, with a full knowledge of types, handling and selection and a keen eye to possibilities of each mating. One must retain size in the strain, and to grade out all the large hens because they lay only 190 eggs is wrong. One may not take cockerels from them as sires and one must mate them to highly-bred males, yet they form their part in strain-building. Personally we like body-size on the hen side and the best of quality on the male's. There are several types and one must learn how to mate them to get what is desired. To mate large 180-egg hens to heavy males may see deterioration; to use neater males may speed up the progeny and show improvement.

Broodiness has never proved any trouble in the breed and one should not let it creep in to excess. Do not breed from hens that are troublesome as broodies and take males from the non-broody dams for preference. Help the breed by retaining the non-broody factor in your strain.

Laying tests give one an opportunity for publicity and enable breeders to secure propaganda for their favourite breed and strain. One is able, too, to get pullets fully trap-nested, thus securing definite records, and to test out matings by entering pullets in these official trials, and also to obtain likely cockerel-breeders at the cost of the entry fees when one does not trap-nest at home. Both shows

and laying tests are shop windows for the breed and should be supported by one and all. The Club has had its own section on several occasions, but usually insufficient pens are entered for this advantage and they have to compete in A.O.V. Breeders should support their club more by entering pens, thus getting a fair test of breed against breed. With a combined effort of breeders of all the varieties one pen section (ten or twelve pens wanted) should not be difficult to obtain at a leading test and say a single-bird contest at another.

Selecting for tests is again an art because one must rear the pullets carefully, send them just right and pick the likely layers for dispatch. Failures are due to many reasons. Late-hatched or immatured pullets are useless. Again, one must have plenty to select from. One should get the selected pullets accustomed to the style of feeding that they will receive at the selected test, wet or dry or both. Have age on their side, and taking the most promising at four months or so let them be fed very steadily. Do not force them and continue to move them about to prevent settling down. Do not feed heavily on maize, maize-meal or fish-meal, but let them have range and more natural feeding. Later collect them together and feed them more liberally as they are due to leave; they may require several weeks of the more liberal feeding. It is well in this breed to send them in lay so that one may see the brown egg; laying preferably three or four eggs. If one is fairly sure of the brown egg in the majority one may be wise to dispatch on the point of lay and not in full production. For tests on values an early start is essential; for those on numbers a quick beginning is not so important. We have often won medals on numbers with hardly an egg for three months through a moult; one cannot win on values that way. Do not send birds that have been forced along because of late hatching; this may lead to small eggs, ovarian disorders, etc.

Handling.

Personally *we are handlers*, as most readers know, and a 329-egg White Dotte test pullet stands to our record. We recommend that handling should be practised and gradually mastered by all who send to tests. In conjunction the records of the birds should be considered, although pedigree would never make us like a bird we disliked on handling. Try to send the best handlers of your best-bred pullets. Avoid pullets with crooked breast-bones and learn to handle for *deformities*. Place the open hand against the abdomen and have the two pelvic bones in line and the breast-bone end central thereto. Any tilt may denote deformity of trunk. Run your hand along the back to see that it is flat and not high on one side or rounded. Feel for the parson's nose to see that it is normal and tail carriage correct, not to one side. Get depth at abdomen and a long breast-bone in support of the abdominal contents, so that no part can sag to bring about soft- or double-yolked eggs, dropsy, internal or spasmodic laying, etc. Make sure that both eyes are sound and

pupils large and that there is no peculiarity of head carriage. Handle the thighs to make sure the bones are not thickened or curved; examine the shanks to see that there is no curvature or weakness. In some birds the ankle is turned or the toes twisted. Select pullets that walk and run easily showing a little thigh. Discard any that are "hearty" and turn blue in face, or with hollow face breathe with difficulty. One should avoid "blowers" when the beak is kept closed; soundness in health, heart and lungs is important. Give preference to birds that eat well, are docile and friendly; discard bullies, funks, and wild specimens. Next aim at neat shanks, a neat intelligent headpiece, keen and intelligent expression, tight silky feathering, especially at thigh and on saddle, fineness of skin and soft pliable abdomen between and directly below the pelvics. Avoid birds with coarse heads, woolly feathering, hardness between and below pelvics, heavy legs and pelvics, lazy expression, and thick skulls. See that there is no crop disorder as from sagginess, low carriage thereof, etc.

Table Purposes.

In mating for this get the full-fronted birds with wide well-fleshed and rounded breast-bones, the latter too on the long side. Avoid the deep and shallow breast-bone that carries so little flesh. Aim at body size yet have neat shanks and bone, fine texture of skin and feather, i.e., quality. Avoid heavy coarse bone, yet secure substance with refinement, activity and balance. Discard birds with badly deformed breast-bones. Types of course vary and one can mate up to produce small chickens or large ones accordingly. One is able to tell quality or texture by the small, neat and tight scales on the shank, with thin silky skin under wings (at junction with body), also on pelvic bones. Coarse, raised scales and "rubbery" skin are undesirable for table purposes. Again, the smooth unwrinkled face with finely-grained comb and wattles stand for texture, just as the wrinkled, thick-fleshed face with sunken eye and the overlarge thickened wattles and comb denote undesirable coarseness. There was a time when public demand stood for small chickens early in the season, increasing in size to very large birds later in the year. The price per lb. dropped as size went up in compensation thereof. Such large chickens even at the lowest price per lb. fetched a high price. To-day, however, except for special occasions, it is the smaller chicken that is in most demand, more because the housewife thinks not so much of poundage or weight but of a certain maximum price per bird she can afford to pay. One should learn to mate up the birds to produce the type of chicken in most demand. Excessively heavy, big-boned stock is not to be compared with the neater and more compact solid type. For instance, one can hardly expect small plump chickens quickly to market from heavy strong-boned parents where the progeny will have to go through the bone stage ere they are fleshed at a good age only and at a good

size. The latter may suit the Christmas demand, but not the early trade. If one has the over-large type of bird and the slow grower one must be prepared to have the cockerels late at reaching ripeness. Equally one cannot have the superfine type and expect size in the progeny. The main thing is to mate up for the objective in view, bearing in mind that there are several types in every breed.

Abroad we have seen Barnevelder males mated to Croad Langshans, light Sussex, and white Orpington females to produce first-class large *capons*. Caponising is not generally practised in this country, but where undertaken one must only utilise healthy specimens. It is astounding the weights that such cockerels can register.

The Barnevelder remains to-day a splendid all-round breed, well able on utility merits to take its place among commercial breeds. Given a sturdy acclimatised strain it is *an excellent farmer's fowl*, being hardy and a forager. In addition the cockerels are meaty when killed and the flesh a nice clean white colour.

The value of Barnevelder cockerels mated to flocks of other breeds for the purpose of uplifting colour of egg and causing brown eggs to be in the majority from the progeny cannot be overlooked these days. Crossing is fairly general throughout the country and the Barnevelder is capable of playing its part not only in giving size and colour of egg but excellent table chickens. Besides it is a true gold and will sex-link, as before stated. Where one is keenly interested in brown eggs one may well consider crossing the Welsummer male to Barnevelder females and vice versa. Mismarked specimens that lay brown products can well be so crossed.

Barnevelders and light Sussex will sex-link and give excellent table cockerels; the same remarks apply to Barnevelder x silver-grey Dorkings. For table crossing, too, one may mate the Barnevelder males to females in white or buff Orpingtons, Australorps, Croad Langshans, Jersey Giants and the like. Where a smaller type of table chicken is desired the females used can be Bresse, Anconas, O. E. Pheasant Fowl, White Wyandottes, Rhode I. Reds, etc., to give, too, increased production from the pullet progeny. One is thinking, too, of improving the brown egg when using the Barnevelder male in such cases. For the dual purpose of table and eggs with the latter for increased numbers mainly in mind one might think of using Rhode I. Reds, White and Columbian Dottes, Bresse, Australorps, Anconas, etc., as females. Many strains of Rhode I. Reds lay rich brown eggs and one may by crossing selected hens to Barnevelder males establish a splendid laying cross, the cockerels being also plump. To increase still further the brown-egg factor the first-cross pullets can be mated to Welsummer males out of brown-egg dams. Another excellent laying cross would be the Barnevelder to White Wyandotte (or Columbian Dotte) females, and either sex-links. As foreign blood has been put into the White Wyandotte a few of the chicks will be doubtful. Still, all the day-old chicks

that are "gold" will be pullets and those that are "silver" (or grey) will be cockerels for certain. The few exceptions may be pullets if with golden faces, and it is well to rear all these on and to sex at a later age. The first-cross females from this mating can be mated to Welsummer males to retain colour of egg and laying power. Barnevelder \times Bresse (females) should produce plump little cockerels and good-laying pullets to which when ready Welsummer males can be mated if desired. Thus if for table purposes in the main one may select the heavier table breeds, and if for eggs one can rely more on the laying breeds, to be followed by a lighter male like the Welsummer.

In First Crossing

One picks up vigour undoubtedly and commercial breeders are relying thereon for that reason and because of the increased rearability. If one is breeding for egg-production, however, the same care must be used in selecting the parent stock as for pure-breds. The male birds employed must be from high-record dams and have like back breeding. They must, too, be put to good laying females. First crossing also tends in our opinion to level up the average production of progeny, which is an important thing. As to whether one should go beyond the first cross opinions differ. Under old rules one would mate, say, a Barnevelder male to Welsummer females, and the first cross progeny females would be put to a Welsummer male, and their progeny again to a Barnevelder male. But we have seen such excellent results when first crosses have been wisely mated to males of a third breed that we do not look upon the practice with disfavour. Yet success must depend upon the selection of the stock mated, based on the objective desired.

Close Breeding

Has always been widely practised by breeders of both exhibition and utility stock. Where colour points are concerned outcrossing may tend to lose certain established points. A breeder interested in colour and markings works in a different way perhaps to another. You may see that in the chickens from different breeders when culling, and in any breed. Growing stock in one strain may look promising from the start, and those from another may be quite unpromising at a young stage, yet finally clear of defects and show up their excellencies. The exhibition breeder has invariably supported close breeding and even breeding to line where the son goes back to the mother, and the father to the daughter. In all such breeding, whether just close or systematically in line, one must use only well-grown vigorous parents or weaknesses will be bred firmly into the strain. Close breeding with weak stock will mean weediness. Thus one has been inclined to buy a breeding trio or mated pen from one breeder and to go back to him for new stock or sitting eggs. Any attempt at outcrossing has been by means of a fresh hen or two with the results carefully checked ere the progeny go into the line.

In close breeding one is able to gain security against disease in knowing the stock inside and out. Constantly breeding from vigorous adults must tend to give rearability and freedom from disease if this has never been in the strain. To *outcross* can upset this if one brings in the wrong males.

In *breeding layers* it has equally been the custom to adopt close breeding. But outcrossing is receiving attention just now and is giving splendid results. Many to-day are bringing in new males every season. Vigour, better average production, rearability, etc., are all claimed as assets obtained thereby. In close breeding one knows the A to Z of every bird; in outcrossing, to be successful, one must be equally familiar with every new bird introduced. It is not wise to buy from any and every source without the closest inquiry. Work up a reliable strain of females the capabilities of each of which you know, and test out newly purchased cockerels, keeping them on as cocks if satisfactory. Repeat successful matings! Where one is a stock breeder all such detail testing can be carried out. Commercial men may not be as happily placed. In that case the success of outcrossing depends upon the choice of the new males introduced. Close breeding depends for success on the body size, rearability, and vigour of the parent birds; out-crossing depends upon the new birds brought in. If they are not what they are declared to be, if the buyer is unable to tell whether they are up to quality or not, and if he is unable to choose the right hens for them—then there can be failures. Failures equally from close breeding if the breeder cannot mate up successfully and does not breed well, kill well, and select parent birds that have always been healthy, vigorous and good doers from day-old stage onwards. Breeding from a few selected pullets enables one to retain full brothers of those pullets that are putting up excellent records in the same season.

CHAPTER XIV.

MATING, REARING AND CULLING.

ONE may well say that the continued success of a breed will always depend upon its vigour and stamina. *Rearability* is an essential these days, and combined with winter laying we have two of the keys to success commercially. We have stated that the Barnevelder did not at first suit our own climatic conditions well. Things have changed now because the breed has been bred here so long as to be fully naturalised.

Culling during the rearing stages means much by way of stamina and the robustness of a strain. Do not tolerate weaknesses of any

kind. Kill off all weaklings among the chicks, cull for table all that feather poorly, and mark with red rings (for danger) all that ever show signs of weakness up to and even beyond maturity. Then they will not be bred from. Mark all birds that are very late in maturing, as one does not wish to cultivate that undesirable factor. Cockerels that cannot get their wing-bow and tail feathers should go to table. Study the birds in the moult, too, and give preference to hens and cocks that moult out normally, discarding for breeding those that cannot easily get their new plumage. Growing stock with wheeziness and rattling or affected by colds should be back-marked. Thin-shanked, weedy specimens are hopeless, with thin shallow beaks, hollow faces, maybe dried legs or even white shanks. Youngsters that eat well and never grow may have worms. Birds that handle light as if skin and bone should be discarded for breeding. "Breed well and kill well" is a sound rule for vigour.

Excellencies of colour or markings must not turn one away from the direct line of selecting for vigour. The temptation is always there to pardon weakness in an individual because of its excellent markings, but in that way a strain is weakened. Excellencies even of laying should never excuse undersized specimens. Stamina comes above all things.

In *mating up* the pens get the male birds fit before they go in with the hens, fully up in tail, sickles, hackles and plumage generally, also lustrous. The headgear too should be blood-red, showing ripe condition of the reproduction organs. If in the moult, when mated, he may prove infertile for a time and not gain condition. It is not so easy to secure fitness in the breeding pen when a good cockerel refuses to eat his food and gives it all to the hens. Ere being mated and when on his own he can be fed into condition. Make full use of boiled linseed for young stock finishing off their feathering and for adults coming through the moult. The hens are best conditioned by being put out on free range in late summer and fed sparingly on grain till they begin to moult. Then return them to their pens and feed them up into laying condition. Use the moult to empty them of excessive internal fat. Never hesitate to withdraw a hen that does not come well over the moult. Do not breed from hens with baggy abdomens; dust them all well at mating time. Feed the cockerels if necessary on their own each morning to aid fertility, especially if they are not good feeders, as ascertained by handling their crops at night when the birds are on the perches. One can drop the cockerel into the run and feed him on his own and after a few mornings he understands what is expected of him. When mated up the male should be talking well, active and vigorous. If he is mopish one may not expect good fertility. Laying condition is on a par with breeding condition, we always think, and when a pen of 10 or 12 hens are laying 50% daily hatchability should be at its best. If but one or two eggs are being collected much dead-in-shell or infertility can be expected for a time till laying has improved.

Grass Runs.

Have *roomy grass enclosures* for all breeding stock; clean ground too. Such are an aid to hatchability and rearability.

Breeding stock may benefit with a little cod-liver oil in the mash early in the season. It is usual to mate 10 to 12 hens to each male and when flock-mating results are better on free range. Do not feed hens like pullets and get them overfat at the start or breeding results will suffer. Go over every breeding bird for deformities and hold a few males in reserve. Cockerels are best for early breeding results in quantities. Cocks are more suitable for later work when they have had some sun on their backs, unless they are the exceptions and the vigorous well-preserved type over the moult and ready for mating early, with every feather in its place. Hens too are often late in starting to lay and for early work we should advise every breeder to mate up some pullets, selecting only the well-developed ones. Pullet breeding is quite satisfactory so long as the right class of bird is chosen and they can be hen-bred, at least not always bred from pullets. The advantage lies in having greater quantities of early eggs from pullets as against hens, and in having the cockerels ready for mating earlier than cocks. Much can be done, however, by getting adult cocks and hens over the moult early, which means judicious care of them from the end of the summer and over the moult. One must speed the moult by stopping them laying, thereby getting them into lay again very much earlier than would otherwise be the case.

Growing Stock

Are best put on slats for perching to prevent crooked breast-bones. Slatted platforms are excellent. Early chicks, too, do best if cod-liver oil is included in the mash, especially if kept indoors for a week or two. One has the choice of rearing them on the grass from, say, the second week or indoors up to eight weeks. In this latter case one may adopt sun-parlours. Reared indoors they require special feeding and houses of special design. One can at all times tell vigour and stamina by handling; at three months one may sort out the promising chickens of either sex in this way. The best doers handle plump and solid with eye bright and top eyelid round. The bad doers are light, dull in eye and with drooped top eyelid. The healthy bird is sleek and the poor doer is unkempt, with feathers loose, dry and staring. One can at the early age cull for such defects as sidesprings to comb, feathered shanks, deformities, etc.

Culling for Colour

Comes later on. The lacing that we expect in our laced pullets will come through first showing up as black, with red-brown to follow, then inner lacing. If the ends are coming red first that is incorrect. One will find the pullets getting different with age. Chicken feathers are replaced with adult feathers and it is the final growth that counts. For instance, we note the feather growing

underneath, known to be a new one because it is still in a soft juicy sheath, and not the top old growth. A young pullet may appear dark in feathers on the breast and unpromising. No markings appear and yet with the next growth they start to come laced underneath, although all the time the feathers on the back are coming well laced. It is not a breed to make too hasty a decision upon at a young age and one should be content just to sort out the promising ones early and await developments.

White in wings in black Barnevelder youngsters can disappear with the next growth, seen to be coming. Baby plumage is nothing to go by and the chicks may be black and white; then there are white feathers in wings. The soft feathers here, however, are later replaced by stiffer and broader ones, noted as coming up by the sheath at the end of each. These may come quite black and sound. Specks of white on neck, breast, back and thighs can all disappear. When the real feathers come through at breast and at back we can begin to judge for colour. A dense sheeny black is promising; a dull grey less so. In black Barnevelder chicks the legs may be a little dusky, yet can clear with age to yellow. As the blacks get towards maturity one will be able to cull for coloured plumage, excessive white in wing, dark shanks, etc. Excessive white in necks of male birds may at that age denote the likelihood of much white in sickles when they finish. Little or no white in under parts of neck may suggest sound sickles.

Culling laced males is equally difficult. White in the chicken wing feathers can clear with the next growth, i.e., the stiff and broader feathers. If breeding only the laced variety those cockerels that come ruddy on cape, top and wing-bow can go to table. The most promising cockerels may in developing be on the dark side. The neck may appear black for a long time, the red-brown not coming down till the last; it may at first be seen on the top part of skull and neck. One can however get a key to the shade of red-brown, for if it is on the yellow side it will finish that way. One must not at the early stage discard young cockerels because they appear to have black necks. The breast feathers begin to come and can give us a key, and we like to have density and gloss in the black parts, not grey, purple or blue. The wing-bows can be noted directly the feathers begin to come through, for they will start black (lacing), then red-brown; if they come red first the feather may be incorrect and red ended. One should mark youngsters that show up with double lacing as chickens as likely to help in the breeding of well-laced pullets. One will be able to note the cape feathers as they come through, then the wing-ends and hackles. The sickles, as stated, may be suspected as likely to be white in parts if the under-parts of neck are excessively white, and if there is a lot of white in the final wing-feathers.

Culling partridge males will follow somewhat different lines to the laced youngsters as outlined in the standard. Much observation

will be necessary as the standard is new. However, we would look for the cockerels that are ruddy on cape, top and wing-bows. They would not be as dark naturally as the laced males, but would show up more red-brown in the parts mentioned. Later as the real feathers came they would be mainly red-brown and not distinctly laced like the laced variety. One would note particularly the cape and any with partridge or peppered feathers when young.

Headpoints should be closely observed as the cockerels get towards maturity. Give preference to those with good eye colour. Next aim at the ideal comb with firm base, nice serrations, and free of twists, wrinkles around the beak, and hollows or thumbmarks. If his comb has too much of a leader it will crack and canker, as it will turn, crack and canker next a hollow part. One should avoid the precocious cockerel that is all headgear and no body at a young age and the bantamised precocious pullet that lays when too young. Equally should one avoid the big, overgrown cockerel that is all body and no comb. The very slow maturer will get all size and no headgear, looking effeminate, just as the precocious young cockerel looks in headpiece a grandfather. Keep to proportions. There is a leaning towards abnormally small combs on large birds in poor layers and towards soft or sprung combs in the best layers. Such is met with in most heavy breeds, and we must correct any tendency of the female by excellency in the male's comb. It is possible to get firmness with fineness in both sexes by selective mating. Weak combs that fall over from their base are very undesirable, as are long thin spikes that droop over. We like a comb that starts in front and goes straight up from the beak to the first serration without any twists or turns, and without folds at the base along the beak, a firm base along the skull, with the leader a little off the neck yet not so outstanding as to wobble about and split. To have a double serration in one may not be regarded as serious by many, yet it is very dominant, being handed on to the sons very regularly. What is a breeding defect should be regarded more seriously than one not so readily handed on by the bird concerned. White eyes in a male are handed on to progeny; sidesprigs on combs are handed on most regularly, as are seriously deformed breast bones of the circular pattern.

Cankered combs prove very troublesome. The comb in turning cracks and ulcerates, a little yellowish canker forming. This may increase and eat right into the comb, being very difficult to stop and cure. One should attend to it in the early stages, removing the slight canker with a sharpened piece of wood, then paint with strong iodine and swab with the oil of turpentine disinfectant. If not a show bird one may isolate the bird and cut off the end of the comb which turns or wobbles about, as otherwise the hens in the pen may start picking at it and fetch blood and become real cannibals. One should never mate up cocks or hens having wounds in comb and should remove birds that get damaged, causing blood to flow.

Otherwise the birds may attack the parts, and once they taste blood they may peck the combs of every male bird put to them. Some males at once correct the hens and no more is seen of the vice. Others merely stand still and let their consorts peck away at their combs, drawing blood. The season's best mating may be lost if cannibalism commences.

Crooked breast-bones will be looked for. There are two types, one caused by perching and the other inherited. The latter gets firmly fixed in a strain and breeds very true. In type it is like the letter S. A small kink may be due only to perching too young or on a badly designed perch. There is the type of breast-bone that we never favour because it is deep, shallow and pointed. It leads not only to crooked breast-bones but tilted ones, also watery cysts, growths and corns. A male with this stamp of breast-bone, invariably heavy in bone and coarse, breeds sons with a like defect. We like the breast-bone that is wide and not too deep, giving a heart-shaped body when girthed and not a V-shaped one. It is always well fleshed, as the latter carries little meat, being all depth and no width. If we have a slatted platform made of slats one inch wide (and deep) and one inch apart this supports the breast-bone. We seldom find faulty bones in slatted-floored houses or arks.

Crooked toes are undesirable and "duck" toes (where the back toe turns round and comes forward) are inherited. Get males with back toes that go straight out at the back and touch the floor. Examine, too, the hocks, for one should avoid flat-fronted shins and enlarged hocks. Cow-hocked specimens are equally culled by us. Defects in eye should be carefully noted, for the pupil may be defective in shape, or a pin-prick in size; the eyes may even be odd in colour. Again, the wattles may be odd, one being shorter than the other. This will breed very true, and if you use one hen of this stamp you may expect to see her blood in a host of progeny and descendants for years. All birds have not true parson's noses, for in many the tail feathers are merely jutting from the back. Some, too, have trap tails that grow downwards and others are completely rumpless. The presence of one of the latter means many of the others on the farm. Do not breed from them and find out the weakness afterwards.

Rearing for stock purposes can be on a slightly different footing to the management of laying flocks. When three or four months of age the promising ones may be set aside and reared more steadily to get maximum size and development. The rest can be fed for the laying houses. We always think it wise to let pullets selected for trap-nesting, test work and future breeding go along steadily. To push them often means too quick maturity, smaller eggs and less valuable breeders for size of body and development.

Chick feeding to-day divides itself up into several systems. Mash may consist of 60% bran and middlings or 60% maize-meal. The latter may tend to promote quick growth and early maturity, with a leaning towards small eggs and undersized birds. Beginners should

know sufficient about the principles of feeding for results. The use of 60% of bran and middlings will mean slower growth, better body and egg size, etc., than excessive maize-meal feeding. Yet where the former is adopted one must use good quality offals. These vary considerably in different districts and at different times, so that one should rely on the quality of the ingredients in deciding the formulas. Excessive animal food will tend to bring about early maturity and laying. Where the chickens have free range and liberal natural animal food one secures early maturity by giving excessive artificial animal food such as fish-meal, meat and bone, etc. Fortunately one can plan formulas for set purposes. Some feed for size from the start by not overdoing animal food and maize-meal. Others feed for rapid growth and early laying by an increased supply of maize-meal, kibbled maize and animal food. Not a few slow down the pullets at three months or so of age by increasing the bran and middlings and decreasing the animal food. It is well to hold back those selected pullets earmarked for trap-nesting, tests and future breeding, but one must commence in the growing stages. In this breed, as in many others, pay attention to feathering. Milk is always an aid up to two or three months of age; boiled linseed is equally most beneficial. By attending to this one can spot those individuals that feather badly from weakness. Overcrowding and excessive heat will damage feather growth in chickens.

CHAPTER XV.

BARNEVELDER BANTAMS.

MANY will say that there is no need for the Barnevelder bantam and that after advocating large brown eggs for the large birds it is inconsistent to push or support the miniatures. Plenty do tell me that. Oddly enough, I support the bantams for utility purposes and all breeds thereof which can do the laying. And some turn out eggs in the winter more like Leghorns, and *such eggs for size* as one marvels at in coming from so small a bird. Some backyarders have only enough space for miniatures, as they take up little room in housing and garden, require a minimum of food, and when exhibited compete for good prize-money with a reduction in size of receptacle and transit costs. Besides they can be carried on bus or public vehicle in a small basket. Many who keep the large poultry often have to move into another district where their work takes them and have little room, so they replace their hens with a few bantams and retain their hobby until they

can return. We therefore do not lose them as poultry-keepers. Bantams are ideal too for junior poultry-keepers, and the youngster of to-day is the poultryman of to-morrow. They can do a national work in fostering the future of the industry. Bantams make children fond of animals, bringing out the better qualities in the kiddies. They have in them a paying hobby, too, with eggs for the return to cover the costs of feeding, etc. Eggs, too, that are of the right size for young children to eat. As to market value one can always sell the eggs, and it is easy to keep up egg-size, but not by breeding for the smallest possible specimen that can itself be put in an egg-cup. We want the product in the egg-cup and not the producer! Bantams can handle big and yet look small and compact, laying a good $1\frac{1}{2}$ oz. and over egg, and plenty of them.

Barnevelder bantams were bound to come, because in time in all breeds one gets an odd, undersized bird or two which suggest to the owner that he should make miniatures of them. We handled most of the earliest bantams and they were bred pure from the large birds and laid deep-brown eggs. There are to-day a goodly number of Barnevelder bantams on the show-bench in both sexes and excellent in type, colour and markings. At first both sexes were on the large side, as was to be expected, but to-day they are getting right for size. Hens have always been good and nicely double-laced. Males at first were large, yellow in hackles and long in tails. This past season (1931) we have seen cockerels of true breed type, excelling in hackles and tails. The ideal is of course the perfect miniature of the large bird. Judges are now fully acquainted with the variety and good specimens are well placed at even classic shows. The breed club has provided classes for the miniatures for many years and have cups and specials for them, while membership is at a reduced annual fee.

Breeding bantams makes a fascinating pursuit for those with enthusiasm for them. The principles of breeding the miniatures follow certain definite lines when a new breed is being made. Two or three undersized late-hatched females and a cockerel may be mated up and their first eggs set to give winter-hatched chicks. Directly the pullets from this mating begin to lay their eggs are incubated. One may put son to dam and father to daughter and even try brother to sister. The idea is to get eggs directly the smallest pullets in each generation begin to lay and thereby to get as many generations as possible in the first year. Of course some revert for size and many may need to be killed as weaklings. One should cull very severely because weaklings are undesirable as foundation stock. In due course the fixed miniatures will begin to breed fairly true for small stature.

Bantams multiply greatly in their making and we always favour keeping them on their own and away from the large stock. In bantam breeding one is not exactly working along natural lines and weaklings will appear. An endless number will be bred especially

in any new breed, very few of which will be wanted to carry on with because of excessive size or defects. The young cockerels will be very nice on the table. But we should advise the prompt dispatch of all that are in any way weakly. There are two types of miniatures, the one so small because it is weedy, and the other small by chance and yet healthy and plump. One may get a greater number of weaklings if aiming at the tiniest ideal. Our friendly advice is not to try to bantamise by breeding from the weeds because they are the smallest through such weediness. Otherwise they get colds and roup, and such will very readily spread to large stock if near at hand or managed by the same assistants. Bantamise by selection, using only the smallest of the plump and healthy ones. We know the weaknesses of a keen enthusiast making a new breed of bantam in that he or she will breed away merrily until the whole place is full of bantams. Treat bantamising as a select second string, self-contained and on its own. Cull drastically and have no weeds about, especially on a damp site and in bad weather.

Faults in Barnevelder males will be raciness with excessive thigh and shank, cut-away front and narrow shoulders. With this narrow type may go the whipped, flowing tail. Aim at width of back, full front and depth of body, without excessive thigh and shank. Also get the broad short tail with short just-over sickles. In females too avoid the Leghorn type of body with undesirable raciness, long whipped tail and cut-away front. Above all keep to breed type. In some females one often notices white in lobe to excess; use sound red-lobed males. Aim at the right shade of red-brown in hackles of males, avoiding the yellow or commoner colours. Get, too, the true wing-bow lacing and not solid black feathers. It is getting quite an old-established variety and in more hands each season.

CHAPTER XVI.

OTHER VARIETIES.

BESIDES (1) laced, (2) partridge, and (3) black Barnevelders, there are other varieties. At the World's Poultry Congress, 1930, five trios of *whites* were shown in the Dutch section. They were not very distinctive perhaps, as regards type and uniformity or purity of colour. Yet they were there in sufficient numbers to warrant my reference to the existence of a white variety of the breed. That the variety is already in England may be seen by the single-pen entry of a white Barnevelder pullet by an English breeder

in the current National Test. Again, we noted two whites shown at the Dairy Show in A.O.V. by another English enthusiast of the breed. Recently we heard of another importation.

The same difficulties are ahead of the white as faced the black, maybe more so, viz., *the possibilities of crossing*. Breeds of a similarity have never gone well in this country, to wit, Rhode Island Whites, White Rocks, etc. Breeders of White Wyandottes were soon winning the early White Rock and R.I. White classes, using their single-combed Dotte sports. One may as easily put single-combed utility White Wyandottes into this new variety. Of course one may register the pure strains of white Barnevelders, as was done with the blacks, but any move towards that direction should be done in the early stage. That of course is for those interested. From Barnevelder eggs purchased direct from Holland of late we have noted many white chicks hatched out, the rest being coloured. The white variety is being extensively bred by some breeders in Holland.

Crossing white to black Barnevelders might be experimented with. In the case of black Jersey Giant males mated to white Giant females and vice versa the progeny were black. The white might give a little new blood to the black if the mating followed the Giant.

We have from time to time seen *spangled* Barnevelders. The earlier specimens were like the partridge, except that each feather had a white spangle at the end. Then we have had exhibited under us occasionally a black variety spangled with white. This breeder's birds have been bred for large brown eggs, as he has frequently won prizes with them under us in brown-egg classes. It is natural to expect sports in any breed, and of course it is possible to establish any such sport so that in time it becomes an accepted and standardised variety of the breed. The white Sussex as a sport from the light variety is a case in point, as is the Exchequer Leghorn. If the white Barnevelder is a silver we may next expect the buff variety sex-linked by mating a "gold" Barnevelder male to "silver" white females and getting a buff pullet or two. Who knows? And so the problems of colour breeding go on—an exhaustive but entertaining pursuit!

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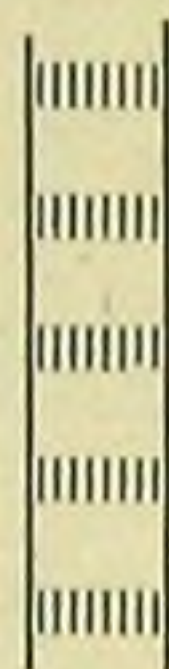
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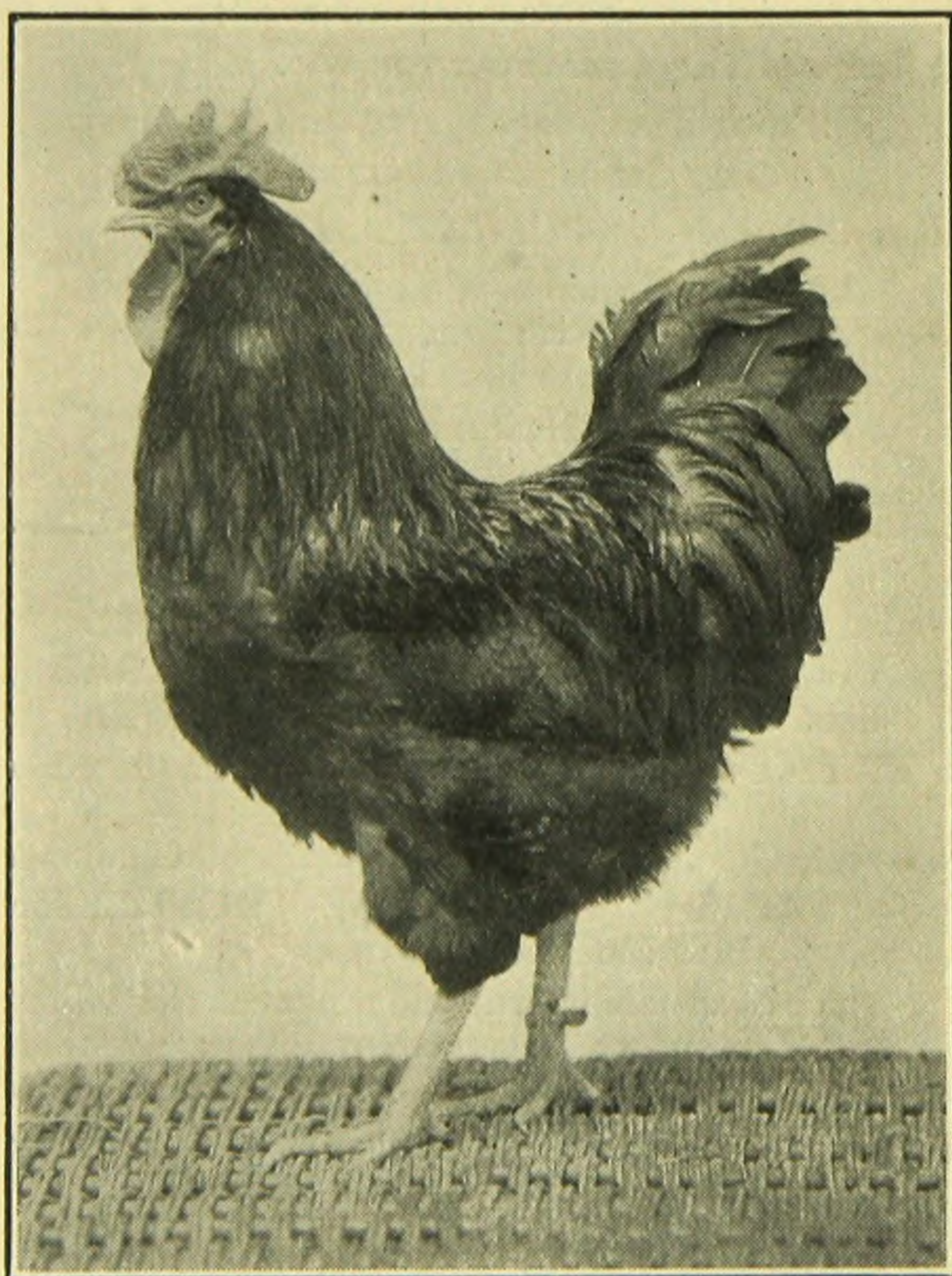
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This Strain has been winning since 1923 in both sexes



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British Barnevelder Club Silver Medal

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Official Records in National Register 1930-31 :

C. 322. 195 first grade eggs in 48 weeks

C. 371. 187

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